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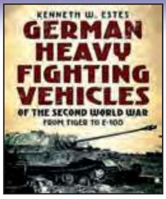

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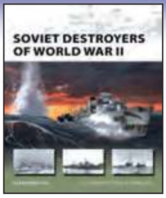

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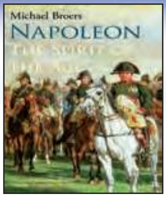

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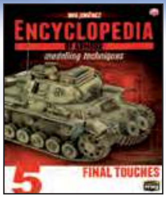

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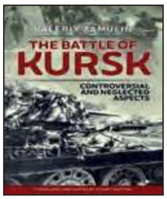

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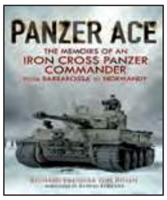

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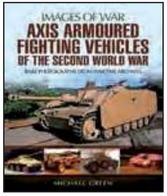

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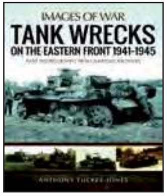

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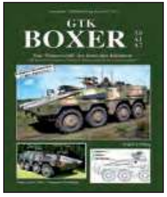

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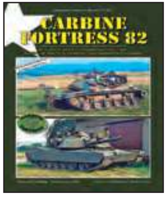

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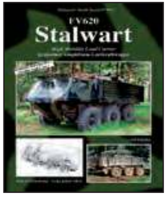

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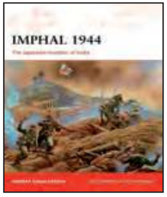

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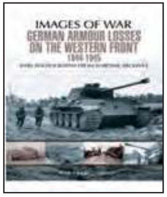

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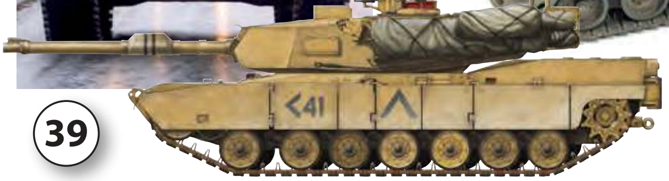

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1/16 = 120mm
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1/24 = 70-75mm
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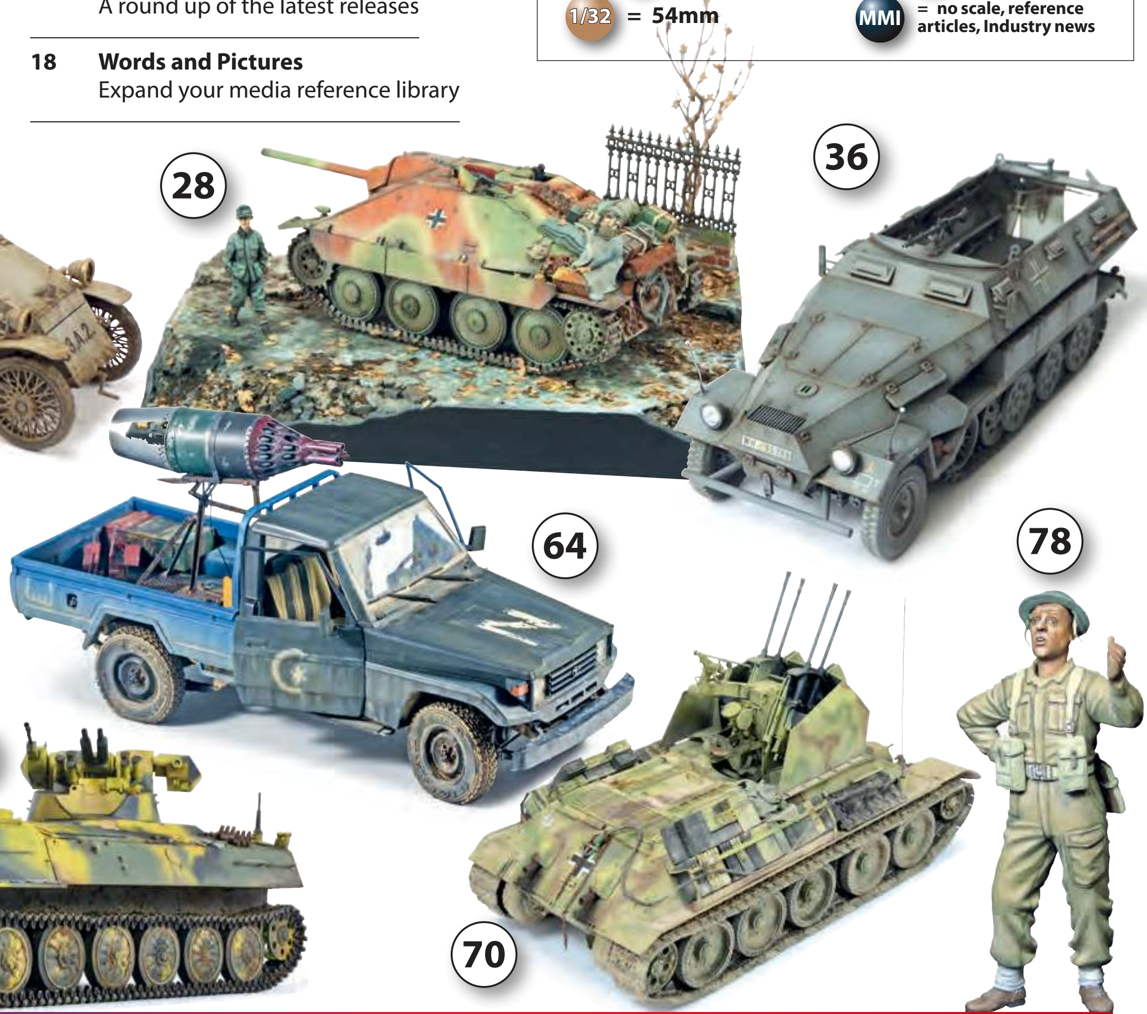

in Tank Modelling - Both Big and Small.

iArt's T-60 brings back the shivers.

The Tunisian Beast Cyber Hobby's North African Tiger I.

And lots, lots more...

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FORUM

One of the most difficult things to achieve as an editor of a modelling magazine is to produce a balanced issue. As I've said often before, the content of each magazine is largely determined by what our contributors send in. No one who writes for or is involved in editing the magazine is a 'professional' modeller as such; we all have lives, careers and families which we have to fit our hobby around. That said, we do have demands that we try and meet: our readers demand a varied content in terms of subjects, scales and the balance between new and old releases, as well as good quality references, while our advertisers expect, rightly, to see their new products featured in our pages. Amidst all the new kits and fashionable subjects, there is also the call for good old-fashioned modelling articles where techniques and tips are shared and where we are reminded of the skills and abilities that are universal across the hobby regardless of subject or scale. We've got two articles of that ilk this month by Chris Jerrett and Konstantinos Tsiompris and with our team of contributors I'm confident there'll be lots more of this type of article to come.

Each month we seem to have more content (or at least that's what it seems to Mark, the designer, and I) and this issue has a bumper nine articles. Three of those deal with new releases. **José Brito** builds one of the most talked about kits of recent months, **Copper State Models' Lanchester armoured car**; **Artur Walachowsk**i presents **ICM's** impressive **Sd.Kfz. 251 Ausf. A**; while I struggle through to the end with **Panda Model's M1 Abrams**. At the other end of the scale, we have three builds of older kits: **José Luis Lopez** makes a very welcome return with **Tamiya's Quarterscale Hetzer**; **Łukasz Orczyc-Musiałek** builds **Dragon's Flakpanzer T-34**; and **Chris Jerrett** does a superb job reworking **Skif's** old **MT-LB**. **Štefan Pásztor** does a great job converting **Meng Model's Toyota Pick-Up** into a rocket-launching 'technical', while **Konstantinos Tsiompri**s reveals his techniques for **painting figures** for dioramas. Finally, **Leif Robinson** debuts in MMI this month with our **Armour in Profile** feature on the **M1 Abrams MBT**. Until next month, happy modelling.

David

David Grummitt Editor

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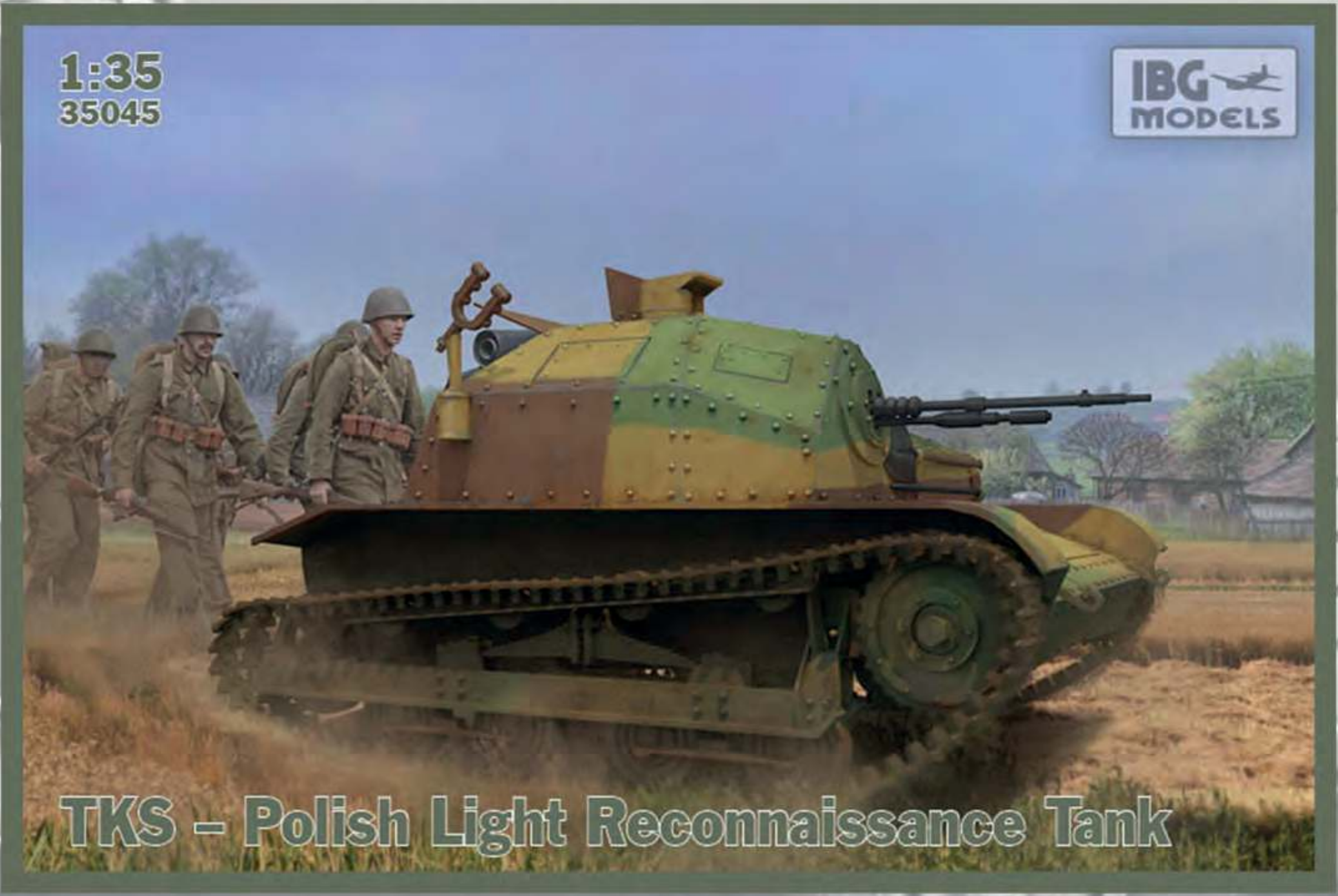
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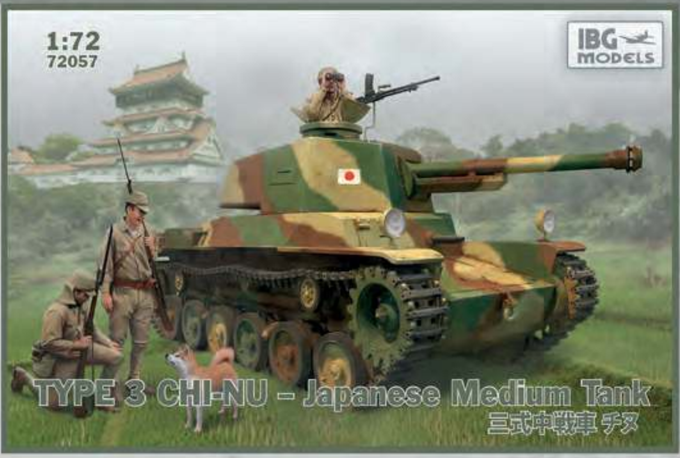
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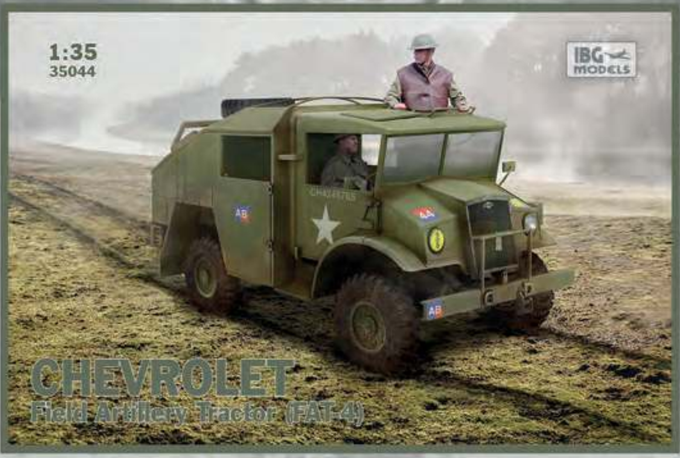
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NEWS AT THE FRONT

An in-depth look at some of the latest releases

Trumpeter 1/35 Andy McCabe

Terminal High Altitude Area Defence (THAAD)
TRUMPETER
1/35 SCALE

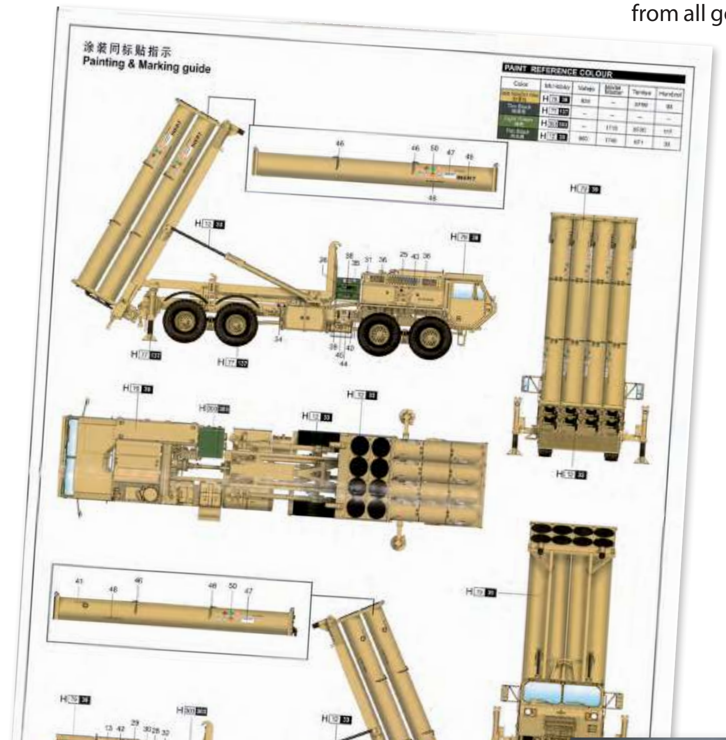
The **T**erminal **H**igh **A**ltitude **A**rea **D**efence **(THAAD)** System is a Multiple Launch Rocket System, mounted on an Oshkosh M1120 Multi-Purpose Load Handling chassis. The THAAD consists of eight launch tubes. Each contains a single THAAD missile, which weighs 900kg, has a diameter of 34cm and a length of 6.17m and a speed of Mach 8.24. The missile does not have a warhead, and destroys its target by intercepting it and the resulting Kinetic Energy then destroys the incoming missile. The THAAD system is manufactured by Lockheed Martin and has been in service since 2008 with the United States Army. The THAAD missile has an Indium-Antimonide Imaging Infra-Red seeker head that locks onto the incoming ballistic Missile and then collides with it to destroy it, the THAAD system can interoperate with other anti-missile systems, such as Aegis and Patriot and uses the Raytheon AN/TPY-2 Radar system to track any incoming Ballistic Missile Threat.

Recently, the THAAD system has been deployed to the Korean Peninsula at the request of the South Korean Military, as part of an ongoing threats posed by North Korea and its ballistic missile tests.

The **Trumpeter** kit of the **Terminal High Altitude Area Defense Interceptor** (THAAD) *(ref. 01054)* contains 22 grey sprues and one clear sprue of injection moulded plastic, one photoetched fret, six metal tubes, eight rubber tyres, one decal sheet, one assembly booklet and, one full colour painting and marking guide and one set of die cut masks. As can be expected from Trumpeter the parts are very nicely moulded and packed with detail.

The kit is based on the standard M1120 Load Handling system with the THAAD multiple launch system loaded onto the back, this is fully catered for by Trumpeter and the system can either be modelled in the deployed or the transport position, four missiles are also supplied for those that may want to show them being launched. Paint colours given are for Mr Hobby and the decals supplied are for a generic THAAD system in use with the United States Army.

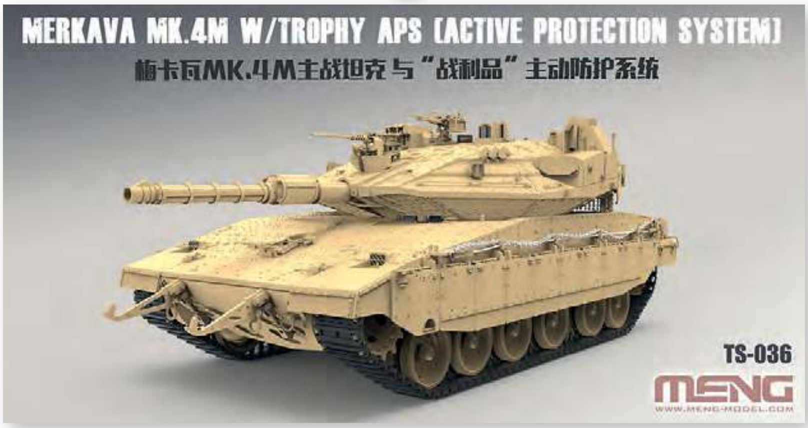
Even with the parts still in their bags in the large box the kit looks mightily impressive and also complicated, although this is somewhat eased by the uniform colour scheme which means that the whole model can be virtually assembled before painting. I have been waiting for a long time for this kit to be released and Dragon are also soon to be releasing the same kit in their Black Label range, where the difference between the two kits lies I am unsure (although the Dragon version is likely to be a simpler affair considering their other Black Label kits) but both will be very popular as the THAAD system is very much in the news currently. I have the Trumpeter Patriot kit in my stash, and this will go very nicely with that one; the model should look very impressive when finished, especially if I can get around to doing the Patriot system with it. Trumpeter kits are available from all good model shops.



Meng Model

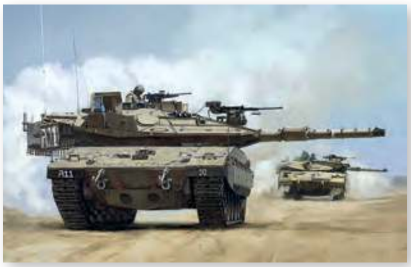
1/35

David Grummitt

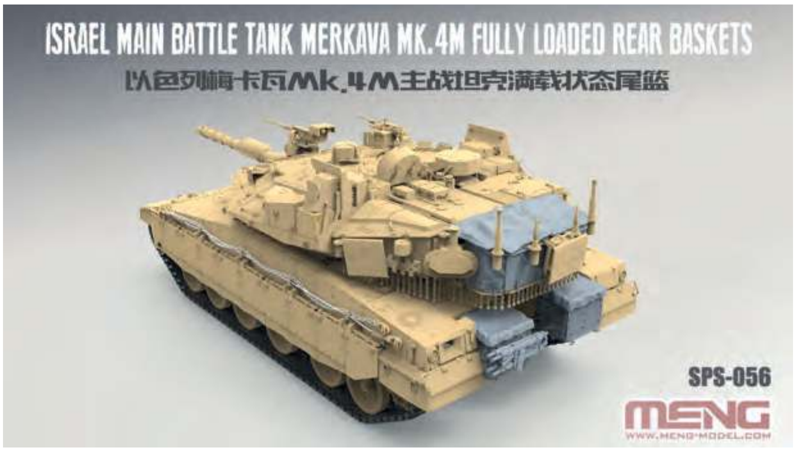

MERKAVA MK.4M W/TROPHY APS [ACTIVE PROTECTION SYSTEM]
梅卡瓦MK.4M主战坦克与"战利品"主动防护系统
TS-036
MENG
WWW.MENG-MODEL.COM

The Merkava Mk. 4 is the most up to date MBT in the IDF arsenal with a new 1500HP diesel engine and, in its 4M version, the Trophy Active Protection System. It is armed with a 120mm smoothbore cannon and represents a real step-change in combat effectiveness and crew survivability compared to earlier versions of the Merkava MBT.

Meng's new **Israeli Main Battle Tank Merkava Mk. 4M w/Trophy Active Protection System** *(ref. TS-036)* is a suitably state-of-the-art model kit to represent this most modern of tanks. Developed in association with Michael Mass of Desert Eagle Publishing fame, this looks an excellent kit. In the box you'll find nine sprues of sand-coloured plastic, a upper hull and two turret pieces, a clear sprue, some truly excellent single piece idler wheels, a small photoetched fret, chain, brass wire, poly caps and a brass tow cable, as well as two large black sprues of individual track links. The quality of moulding is superb and, from what I can tell from fitting the turret halves together, the model is superbly engineered for fit. The turret and hull detailed, while much in the way of small handles is moulded on, is superb and the characteristic anti-slip texture is beautifully produced. There are some interesting features: for example, the typical ball-and-chain anti-RPG fittings on turret rear are well done as single plastic pieces, although they can be replaced with some suitable, well, balls and chains. Once assembled this will make an imposing and typically busy modern MBT. Some eye-catching markings are provided for vehicles illustrated in Desert Eagle's recent book on the Merkava Mk. 4 (reviewed in last month's MMI) and you'll certainly want a copy of that book if you're building this kit.



Meng have also released a set of resin **Fully Loaded Rear Baskets** *(ref. SPS-056)* to replace the two baskets at the hull rear and the large one on the turret. These look very nice once fitted and will certainly help give the Merkava the lived-in look typical of Israeli MBTs. I'm looking forward to building this, my first IDF armour piece, for a forthcoming issue so stay tuned. Very highly recommended, it's available from good model shops. I purchased mine from eBay for about £42.00.


ISRAEL MAIN BATTLE TANK MERKAVA MK.4M FULLY LOADED REAR BASKETS
以色列梅卡瓦Mk.4M主战坦克满载状态尾篮
SPS-056
MENG
WWW.MENG-MODEL.COM

TETRA MODEL WORKS
www.tetramodelworks.com
1/35 SCALE
Late Type
ME-35050 (for TAKOM)
1/35 Russian T-54B Tank Detail-up Set
1/35 SCALE
Early Production
ME-35051 (for MINIART)
1/35 Russian T-54B Tank Detail-up Set
1/35 SCALE
ME-35053 (for ACADEMY)
1/35 Panzer IV Ausf.H Basic Detail-up Set
1/48 SCALE
ME-48002 (for TAMIYA)
1/48 M1A2 ABRAMS Detail-up Set
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TETRA MODEL WORKS
MADE IN KOREA
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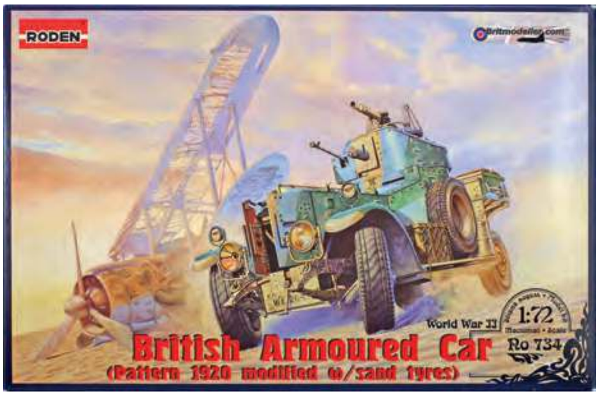
NEWS AT THE FRONT

An in-depth look at some of the latest releases

Roden

1/72

Sergio Bellemo

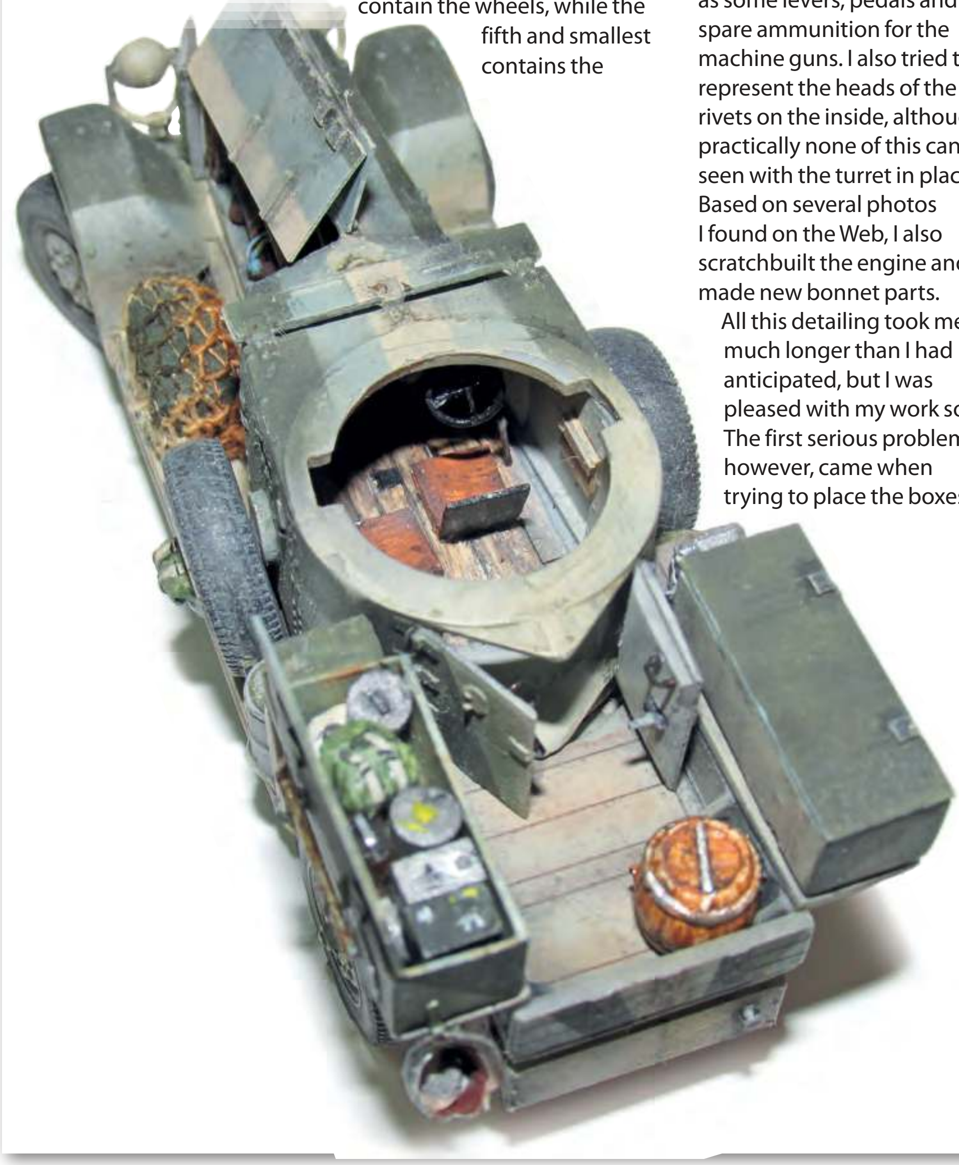


Roden offer several versions of the **Rolls Royce armoured car** in both 1/72 and 1/35. **British Armoured Car (Pattern 1920 modified with sand tyres)** *(ref. 734)* consists of five grey plastic sprues and a small decal sheet. The first sprue covers the body, the second the chassis, two identical sprues contain the wheels, while the fifth and smallest contains the armament. At first glance, it looks to be a finely detailed kit, so I began to assemble it with great enthusiasm, hoping to finish it in a few days.

The construction of the chassis does not present any difficulty, being very well detailed and including the suspension, transmission and the exhaust pipe. While researching this vehicle, I was tempted to detail the interior and decided to open the two rear doors and the armoured windshield. I then scratchbuilt the wooden floor, a couple of seats, the steering wheel and the dashboard, as well as some levers, pedals and spare ammunition for the machine guns. I also tried to represent the heads of the rivets on the inside, although practically none of this can be seen with the turret in place! Based on several photos I found on the Web, I also scratchbuilt the engine and made new bonnet parts.

All this detailing took me much longer than I had anticipated, but I was pleased with my work so far. The first serious problem, however, came when trying to place the boxes that go on the rear wheels, since Roden simply made two identical part, but as one of the sides of the boxes includes a pick and a shovel, the boxes are in the correct position on only one side. I ended up scratchbuilding both boxes and took the opportunity to open one of them with a good amount of supplies inside. The turret was proved tricky, but after several tests and some putty, I was happy with the result.

Before adding the smallest details, I decided to begin painting. Roden proposes two vehicle options for the RAF, one all green in 1936 and another camouflaged in a Caunter scheme from 1941. Of course I chose the latter. After pre-shading, I Desert Sand (Humbrol HU 121), and then masked off the relevant areas for the grey (Humbrol HU87) and then green (Humbrol HU75). I also discovered that the colour scheme and pattern for this vehicle, named 'Tigris', was not correctly drawn in the instructions. I then found a picture of 'Tigris' but had a different turret from the one I had built (but one that could be assembled from from the kit parts but it now too late). At this stage I decided my Rolls would remain nameless! With the camouflage complete, I added some boxes and barrels on the sides and some camouflage netting. When fixing the wheels, I noticed they touched against the mudguards, so I had to slightly relocate the axles and make some small corrections to the exhaust pipe and the lower fuel tank. Finally, I added the headlights, the armament and a bucket hanging from one of the hooks in the back. A lot of work for a model that is only seven centimetres long! Roden kits are available from all good model shops.



Professional Airbrush Valet Service
Have your airbrush professionally cleaned, serviced and returned to you for £40 inc.VAT.

An airbrush and compressor is probably the single most expensive piece of equipment most of us have in our modelling armouries. They are precision pieces of kit and deserve to be properly cared for. Yet how many of us have an airbrush in a drawer that needs cleaning and servicing? Don't let that stop you.

The Airbrush Company Ltd (www.airbrushes.com) now offers a 'Valet Service' for your airbrush. Simply send your airbrush to them for a professional clean and service to get it ready for use like it is new again. Your airbrush will be returned to you with aftercare instructions, helping you to keep it clean and ready for action.

What sets Airbrushes.com apart from other companies selling airbrushes is their experience in technical support, and a repair service developed over seventy years in the business. Mike Vose is their full-time technician, who himself has years of experience in servicing and repairing airbrushes and compressors. The Airbush Company stock spare parts for all of the airbrushes and compressors they sell, so you can be confident when purchasing an airbrush from Airbrushes.com or one of their authorised resellers. The Airbrush Company offers servicing and their 'Valet Service' on the following airbrushes and compressors: Iwata, Paasche, Badger, Sparmax, Premi Air and Squires Kitchen.

The 'Valet Service' does not include the cost of parts and replacement parts, which will be charged in addition. They only offer the valet service on the brands that they sell and support, in case they find that you also require new parts. Mike will contact you to inform if any spare parts are needed. As part of the price of £40.00 inc. VAT, your airbrush will be returned to you by Royal Mail special delivery, a secure delivery method that requires a signature upon delivery. This charge covers UK mainland only. Surcharge applies for return carriage outside UK mainland. If you own an Iwata airbrush, you can claim 20% off your Valet Service if you purchased from The Airbrush Company Ltd or you can provide proof of purchase from our authorised reseller. For further details, check out www.airbrushes.com or give them a ring on +44 1903 767800.

I'm sending my own Iwata in for a service over Easter, so I'll be sure to let you know how it turns out.

Iwata CM-C Plus

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03903
Flying Saucer Haunebu, 1:72

03899
F-117A Nighthawk Stealth Fighter, 1:72

05696
British Legends Gift Set, 1:72

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THE QUARTERMASTERS STORE

A round up of the latest releases

Artitec
Ssyms 46 DB 965217
Scale: 1/87
Ref: 20.321.04
SRP: €38.40

See: www.artitec.nl

Artitec
Ssyms 46 DB Sammp 258-9, ep.IV
Scale: 1/87
Ref: 20.323.04
SRP: €38.40

See: www.artitec.nl

Artitec
US LVT(A)1 - Saipan
Scale: 1/87
Ref: 1870124
SRP: €19.90

See: www.artitec.nl

Artitec
US Sherman M4A3E8
Scale: 1/87
Ref: 1870125
SRP: €14.50

See: www.artitec.nl

Artitec
Leopard 2A4 – Dutch Army
Scale: 1/87
Ref: 1870126
SRP: €14.50

See: www.artitec.nl

Artitec
Leopard 2A4 – German Army
Scale: 1/87
Ref: 1870127
SRP: €14.50

See: www.artitec.nl

Artitec
FV432 Mk.1/2 – British Army
Scale: 1/87
Ref: 1870129
SRP: €14.50

See: www.artitec.nl

Artitec
Land Rover 88 Lightweight – Dutch Army
Scale: 1/87
Ref: 1870130
SRP: €14.50

See: www.artitec.nl

Artitec
Land Rover 88 Lightweight – British Army
Scale: 1/87
Ref: 1870131
SRP: €14.50

See: www.artitec.nl

Artitec
Faun Kraka – German Army
Scale: 1/87
Ref: 1870134
SRP: €10.90

See: www.artitec.nl

Artitec
US M60A1
Scale: 1/87
Ref: 1870135
SRP: €14.50

See: www.artitec.nl

1/35 M32
陸上自衛隊仕様 戦車回収車
TANK RECOVERY VEHICLE M32 JGSDF

Asuka Model
Tank Recovery Vehicle M32 JGSDF
Scale: 1/35
Ref: 35-029
SRP: £TBA

See: www.asukamodel.com

Atak Model
W-SS Grenadier Set
Scale: 1/35
Ref: 35F-03
SRP: €23.80

See: www.atakmodel.istore.pl

Zimmerit PANTHER A Late
M.A.N Pattern #1
set for MENG TS-035 kit
35064

Atak Model
Zimmerit – Panther A (Late) M.A.N Pattern #1 (for Meng Model kit)
Scale: 1/35
Ref: 35064
SRP: £TBA

See: www.atakmodel.istore.pl

Zimmerit PANTHER A Late
DAIMLER-BENZ Pattern
set for MENG TS-035 kit
35065

Atak Model
Zimmerit – Panther A (Late) Daimler-Benz Pattern (for Meng Model kit)
Scale: 1/35
Ref: 35065
SRP: £TBA

See: www.atakmodel.istore.pl

BL35312F
FRENCH
SOLDIER
N°8 WWI

Blast Models
French Soldier No.8 WWI
Scale: 1/35
Ref: BL35312F
SRP: £TBA

See: www.blast-models.com

BEST BRASS AROUND
eduard
Ferdinand
for ZVEZDA 1/35 kit
#36379 general set
#36380 fenders
www.eduard.com

BL35313F FRENCH HEADS N°1 WWI

Blast Models

French Heads No.1 WWI

Scale:	**1/35**
Ref:	**BL35313F**
SRP:	**£TBA**

See: www.blast-models.com

Blitz Kit

Renault ACG 1 – Belgian Version (incl. Commander Figure)

Scale:	**1/35**
Ref:	**35FS1019**
SRP:	**€76.90**

See: www.blitz-kit.fr

SdKfz 234/1 Detail Set

Dan Taylor Modelworks

Sd.Kfz.234/1 Detail Set (for Hasegawa kit)

Scale:	**1/72**
Ref:	**C-72140**
SRP:	**£TBA**

See: www.dantaylormodelworks.com

1/76
1/72
C-76141
Star Antenna

Dan Taylor Modelworks

Star Antenna

Scale:	**1/72 or 1/76**
Ref:	**C-72141**
SRP:	**£TBA**

See: www.dantaylormodelworks.com

Dan Taylor Modelworks

Tiger I Detail Set (for Fujimi & Airfix kits)

Scale:	**1/76**
Ref:	**C-72142**
SRP:	**£TBA**

See: www.dantaylormodelworks.com

Modern R.O.K. Tank Crew Set
1/35
DEF.MODEL

DEF Model

Modern R.O.K. Army Tank Crew Set ('90-2010 Woodland Uniform)

Scale:	**1/35**
Ref:	**DF35016**
SRP:	**£TBA**

See: www.defmodel.com

IDF Magach Tank
Urdan Cupola set
1/35
DEF.MODEL

DEF Model

IDF Magach Tank Urdan Cupola Set (for IDF M48/M60 kits)

Scale:	**1/35**
Ref:	**DM35074**
SRP:	**£TBA**

See: www.defmodel.com

IBG Models

44M Turan III Hungarian Medium Tank

Scale:	**1/72**
Ref:	**72049**
SRP:	**£11.80**

See: www.ibg.com.pl

THE QUARTERMASTERS STORE

A round up of the latest releases

Bergepanzer III
German Armored Recovery Vehicle
1:72

IBG Models

Bergepanzer III German Armored Recovery Vehicle

Scale:	**1/72**
Ref:	**72059**
SRP:	**£TBA**

See: www.ibg.com.pl

US Infantry in Gas Masks (1918)
ICM

ICM

US Infantry in Gas Masks (1918)

Scale:	**1/35**
Ref:	**35704**
SRP:	**£8.50**

See: www.icm.com.ua

KHD A3000
WWII German Truck
ICM
1:35

ICM

KHD A3000 WWII German Truck

Scale:	**1/35**
Ref:	**35454**
SRP:	**£27.99**

See: www.icm.com.ua

British Infantry in Gas Masks (1917)
ICM

ICM

British Infantry in Gas Masks (1917)

Scale:	**1/35**
Ref:	**35703**
SRP:	**£8.50**

See: www.icm.com.ua

Sd.Kfz. 265 Panzerbefehlswagen
ITALERI

Italeri

Sd.Kfz.265 Panzerbefehlswagen (incl. Commander Figure)

Scale:	**1/72**
Ref:	**7072**
SRP:	**£11.50**

See: www.italeri.com

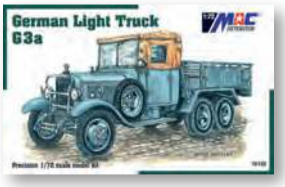
LG 3000 Funkmastkraftwagen
Kfz.301
MAC

MAC Distribution

LG 3000 Funkmastkraftwagen Kfz.301

Scale:	**1/72**
Ref:	**72119**
SRP:	**£TBA**

See: www.mackits.cz


German Light Truck
G3a
MAC

MAC Distribution

German Light Truck G3a

Scale:	**1/72**
Ref:	**72135**
SRP:	**£TBA**

See: www.mackits.cz

MAC
German Light Truck G3
Kfz.62 Druckereikraftwagen

MAC Distribution

German Light Truck G3 Kfz.62 Druckereikraftwagen

Scale:	**1/72**
Ref:	**72136**
SRP:	**£TBA**

See: www.mackits.cz

MAC
German Light Truck G3a
Funkkraftwagen
Kfz.61

MAC Distribution

German Light Truck G3a Funkkraftwagen Kfz.61

Scale:	**1/72**
Ref:	**72137**
SRP:	**£TBA**

See: www.mackits.cz

URAL 43202
9F37M MISSILE TRANSPORTER
MAC

MAC Distribution

Ural 43202 9F37M Missile Transporter

Scale:	**1/87**
Ref:	**RES8711**
SRP:	**£TBA**

See: www.mackits.cz

MAC Distribution

Zu-23-2

Scale:	**1/87**
Ref:	**RES8712**
SRP:	**£TBA**

See: www.mackits.cz

KaMaz 53202 & ZU-23-2
MAC

MAC Distribution

KaMaz 53202 & Zu-23-2

Scale:	**1/87**
Ref:	**RES8713**
SRP:	**£TBA**

See: www.mackits.cz

TATRA 805
1952 - 1960
MAC
scale 1:43

MAC Distribution

Tatra 805 1952-1960

Scale:	**1/43**
Ref:	**RES43020**
SRP:	**£TBA**

See: www.mackits.cz

TATRA 805
RM-31MA TRINEC
1952 - 1960
MAC
scale 1:43

MAC Distribution

Tatra 805 RM-31MA Třinec 1952-1960

Scale:	**1/43**
Ref:	**RES43022**
SRP:	**£TBA**

See: www.mackits.cz

TATRA 805
AMBULANCE
1952 - 1960
MAC
scale 1:43

MAC Distribution

Tatra 805 Ambulance 1952-1960

Scale:	**1/43**
Ref:	**RES43023**
SRP:	**£TBA**

See: www.mackits.cz

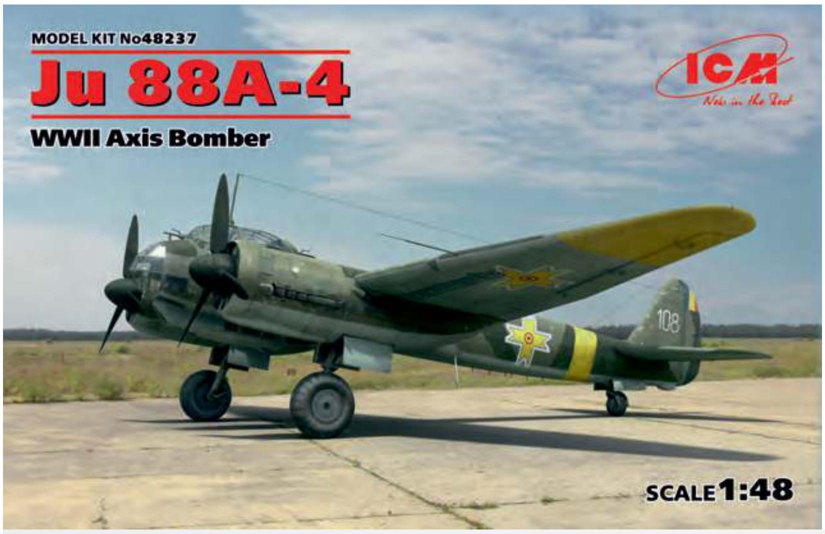
LG 3000 Tankspritze TS-2.5
(Kfz.343)
MAC

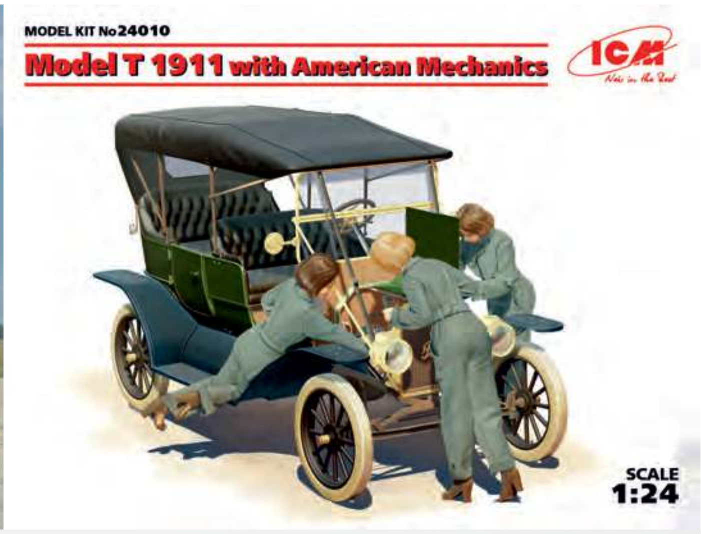
MAC Distribution

LG 3000 Tankspritze TS-2.5 (Kfz.343)

Scale:	**1/72**
Ref:	**72118**
SRP:	**£TBA**

See: www.mackits.cz


MODEL KIT No48237
Ju 88A-4
WWII Axis Bomber
ICM New in the Best
SCALE 1:48


MODEL KIT No24010
Model T 1911 with American Mechanics
ICM New in the Best
SCALE 1:24

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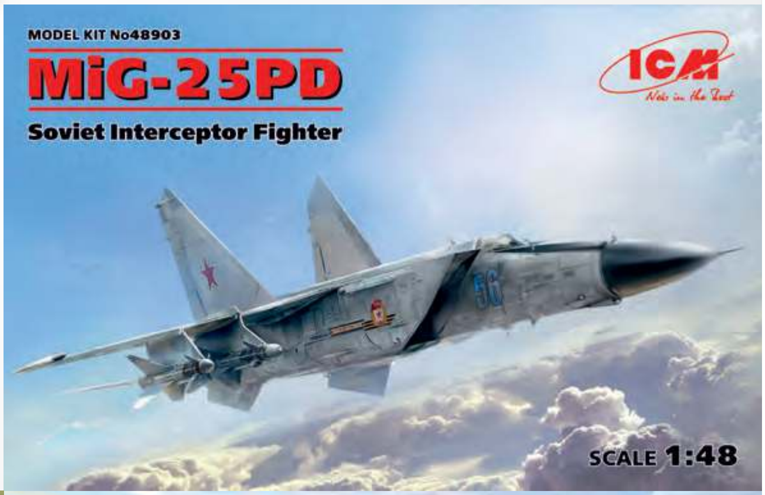
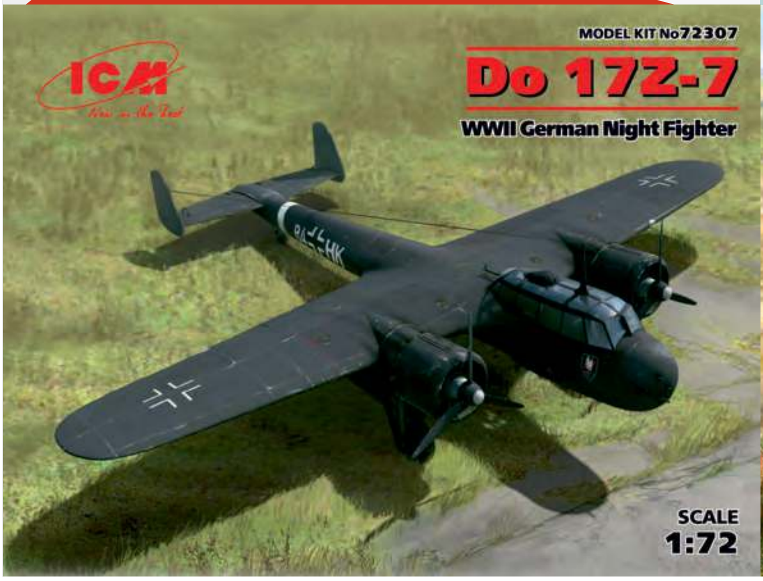
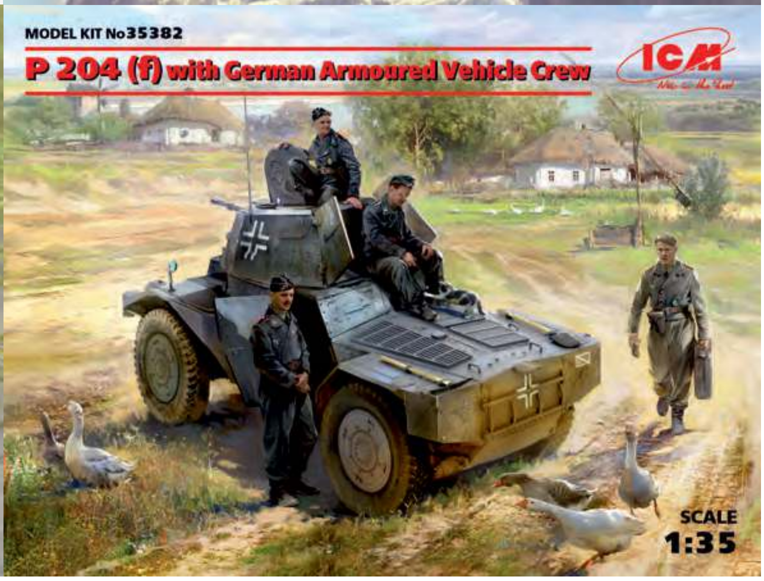

MODEL KIT No48903
MiG-25PD
Soviet Interceptor Fighter
ICM New in the Best
SCALE 1:48


ICM New in the Best
MODEL KIT No72307
Do 17Z-7
WWII German Night Fighter
SCALE 1:72


MODEL KIT No35382
P 204 (f) with German Armoured Vehicle Crew
ICM New in the Best
SCALE 1:35

THE QUARTERMASTERS STORE

A round up of the latest releases

GERMANY SCHWERE PLATTFORMWAGEN TYPE SSYMS 80
modelcollect

ModelCollect

Germany Schwere Plattformwagen Type SSYMS 80

Scale:	1/72
Ref:	UA72043
SRP:	£TBA

See: www.modelcollect.com

WWII GERMANY LANDCRUISER P.1000 RATTE

ModelCollect

WWII Germany Landcruiser P.1000 Ratte

Scale:	1/72
Ref:	UA72088
SRP:	£TBA

See: www.modelcollect.com

GERMAN 128MM FLAK 40 HEAVY

ModelCollect

German 128mm Flak 40 Heavy Anti-Aircraft Gun Type 2

Scale:	1/72
Ref:	UA72101
SRP:	£TBA

See: www.modelcollect.com

Model-Miniature

VBL Milan (incl. Figure)

Scale:	1/72
Ref:	MM-R222
SRP:	£TBA

See: www.model-miniature.com

Model-Miniature

AMX-10 P

Scale:	1/72
Ref:	MM-R224
SRP:	£TBA

See: www.model-miniature.com

AMX-10 P ACCESSORIES

Model-Miniature

AMX-10 P Accessories (incl. Figure, Rear Basket, 4 Large Bags, Jerrican & 4 Small Bags)

Scale:	1/72
Ref:	MM-R225
SRP:	£TBA

See: www.model-miniature.com

ModellTransModellbau
MT72188
T110E3 120 mm tank destoyer
Conversion for M48

ModelTrans Modellbau

T110E3 120mm Tank Destroyer Conversion for M48

Scale:	1/72
Ref:	MT72188
SRP:	£TBA

See: www.modelltrans.com

ModellTransModellbau
MT72502
M109 US Army Conversion for Revell

ModelTrans Modellbau

M109 US Conversion (for Revell kit)

Scale:	1/72
Ref:	MT72502
SRP:	£TBA

See: www.modelltrans.com

ModellTransModellbau
MT72505
M109A3GA1
Conversion for Revell

ModelTrans Modellbau

M109A3GA1 Conversion (for Revell kit)

Scale:	1/72
Ref:	MT72505
SRP:	£TBA

See: www.modelltrans.com

OKB Grigorov
Soviet Self Propelled Howitzer 2A3 Kondensator 2P
1/72 scale

OKB Grigorov

Soviet Self-Propelled Howitzer 2A3 Kondensator 2P

Scale:	1/72
Ref:	72064
SRP:	£TBA

See: www.okbgrigorov.com

After the battle

Rado Miniatures

After the Battle – W-SS Pz.Grenadiere, 1944/54

Scale:	1/35
Ref:	RDM35012
SRP:	£TBA

See:
www.facebook.com/radominiatures

RED IRON
1/35

Red Iron Models

Soviet Truck Crane SMK-10

Scale:	1/35
Ref:	RIM35032
SRP:	£TBA

See: www.redironmodels.com

1/72
Torpedo Craft

Riich Models

Japanese Type 4 Ka-Tsu Amphibious Tank (Torpedo Craft)

Scale:	1/72
Ref:	72004
SRP:	£16.99

See: www.riichmodel.com

TAKOM
HANOMAG SS100
MEILLERWAGON
V2

Takom

Hanomag SS100 Meillerwagon Rocket V2

Scale:	1/72
Ref:	5001
SRP:	£TBA

See: www.takom-world.com
Takom are distributed in the UK by Pocketbond (www.pocketbond.co.uk)

CANADIAN 20 cwt G.S. Trailer
Composite Construction

Thunder Model

Canadian 20cwt G.S. Trailer (Composite Construction)

Scale:	1/35
Ref:	35301
SRP:	£TBA

See: www.thundermodel.com

1:72
Red Army First Pick-Up

Zebrano

Red Army First Pick-Up

Scale:	1/72
Ref:	72117
SRP:	£TBA

See: www.zebrano-model.com

GRAPHICAIR

image of scale model courtesy of Dustin Dias

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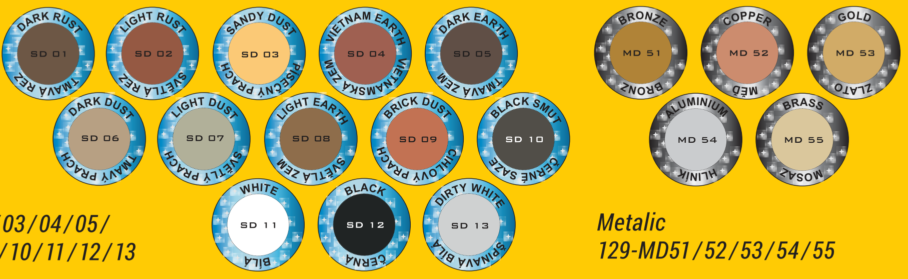
DARK RUST SD 01 TMAVÁ REZ
LIGHT RUST SD 02 SVĚTLÁ REZ
SANDY DUST SD 03 PÍSEČNÝ PRACH
VIETNAM EARTH SD 04 VIETNAMSKÁ ZEM
DARK EARTH SD 05 TMAVÁ ZEM
DARK DUST SD 06 TMAVÝ PRACH
LIGHT DUST SD 07 SVĚTLÝ PRACH
LIGHT EARTH SD 08 SVĚTLÁ ZEM
BRICK DUST SD 09 CIHLOVÝ PRACH
BLACK SMUT SD 10 ČERNÉ SAZE
WHITE SD 11 BÍLÁ
BLACK SD 12 ČERNÁ
DIRTY WHITE SD 13 ŠPINAVÁ BÍLÁ
BRONZE MD 51 BRONZ
COPPER MD 52 MĚĎ
GOLD MD 53 ZLATO
ALUMINIUM MD 54 HLINÍK
BRASS MD 55 MOSAZ

Natural
129-SD01/02/03/04/05/
06/07/08/09/10/11/12/13

Metalic
129-MD51/52/53/54/55

129-H1000/H1001/H1002/
H1003/H1004/H1005/H1006/H1007

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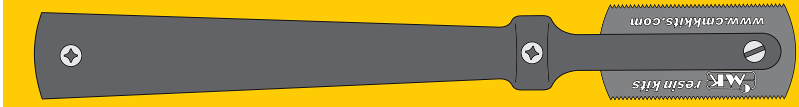
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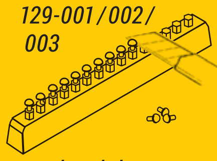
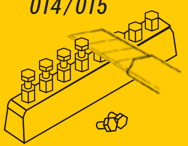
003



Button-head rivet
calibre ∅ 0,8–1,2 mm

129-004/005/
014/015



Hexagonal bolt head
∅ 0,8–2,0 mm

129-006/007/
014/015

Bold + Hexagonal
head ∅ 0,8–2,0 mm

129-008/009

Diorama gravel-crushed stone
Rough/Fine

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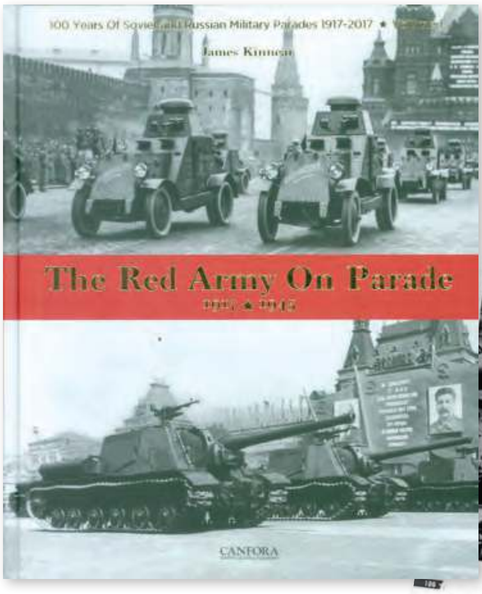
WORDS&PICTURES

A round up of the latest military titles

Title:	The Red Army on Parade: Volume 1, 1917-1945
Author:	James Kinnear
Publisher:	Canfora
ISBN:	978-9-19823-2-585
Price:	£39.00 (hb)


100 Years Of Soviet and Russian Military Parades 1917-2017 ★ Volume 1
James Kinnear
The Red Army On Parade
1917 ★ 1945
CANFORA

Military parades were part and parcel of the military culture of Soviet Union from its inception and this proud tradition has been carried onto the present day by the Russian Federation. The first was held on 1 May 1918 and they continued each year until 1941. They resumed four years later, in 1945, when a May Day parade was held as well as the massive VE Day parade on 24 June and a smaller one held in September to mark victory over Japan. Post war, until today, the annual Victory Day Parade (9 May) has been the occasion for new Soviet and Russian military hardware to make its public debut. This book, the first in a series of three from Canfora Publishing and written by renowned Soviet/Russian armour historian Jim Kinnear, is a feast for modellers of the period. Each parade is discussed in detail and the hardware on show listed and illustrated. Tables at the end list each parade and the vehicles on display. The book contains 256 pages and over 500 photos of tanks, SPGs, armoured cars, prime movers, lorries and artillery pieces. Events held in other Soviet cities are covered alongside the well-known Moscow parades. The scale of these events, and especially the massive VE Day parade, is staggering. The quality of the book's production, the unrivalled collection of photos and the range of military equipment on show, and Mr Kinnear's careful research make this a must-have for all interested in Soviet armour. I look forward to the next two volumes of this three-volume series that will cover military parades through the Cold War to the present day. Very highly recommended. It's available in the UK from Panzerwrecks (www.panzerwrecks.com).

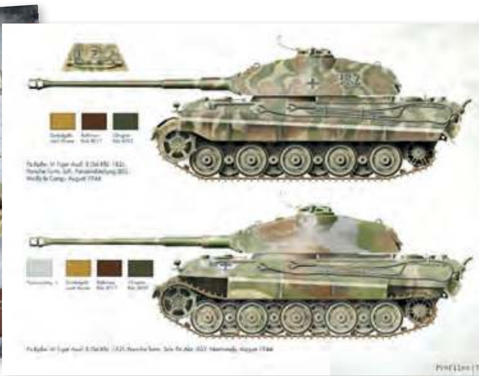
David Grummitt

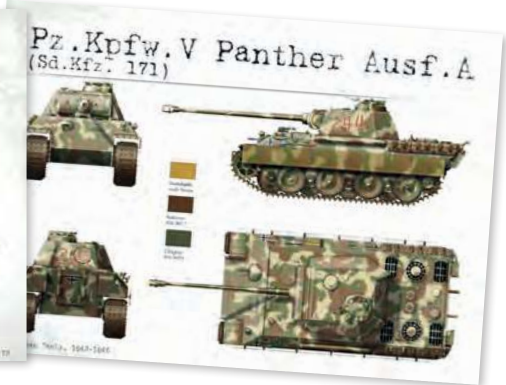
Title:	Panzer Aces: Guide to Camouflage of the German Tanks 1943-1945, Profiles II
Author:	Rodrigo Hernández Cabos
Publisher:	Acción Press
ISBN:	978-8-49546-4-989
Price:	€30.00 (pb)

There are few topics more controversial in armour modelling than the camouflage colours of German armour in the last years of World War II. The basic picture is clear enough: from February 1943 all German AFVs left the factory in a basic Dunkelgelb finish and they were camouflaged at the front with Olive Green and Red Brown; from the autumn of 1944 camouflage schemes were increasingly applied at the factory and each factory manufactured vehicles with distinctive and particular schemes. However, the availability of paint and other factors led to a divergence from these rules towards the end of the war and the actual colours used have been a source of contention as historians struggle to interpret archival photos and official documents. This new book of beautifully drawn colours profiles of Panthers, Tiger Is and Tiger IIs will doubtless fuel this controversy. As well as the usual Dunkelgelb (of which there are at least four acknowledged shades), Olivgrün and Rotbraun, the profiles make the argument that several Panthers and Tiger IIs left the factory with Elfenbein (the shade usually applied to Panzer interiors) as the base, camouflaged with a darker shade of green, Resedagrün alongside the more usual colours and the well-documented Red Primer (RAL8012). The arguments for the use of these colours are well made, but I suspect they won't be accepted by many historians and modellers. Nevertheless, the colour profiles are very attractive and certainly will provide food for thought and inspiration for modellers looking to tackle the new Panthers, Tigers and King Tigers from the likes of Meng, Takom and Rye Field Models. Recommended. The book is available direct from Acción Press w.euromodelismo.com). Our thanks to Rodrigo for the review copy.

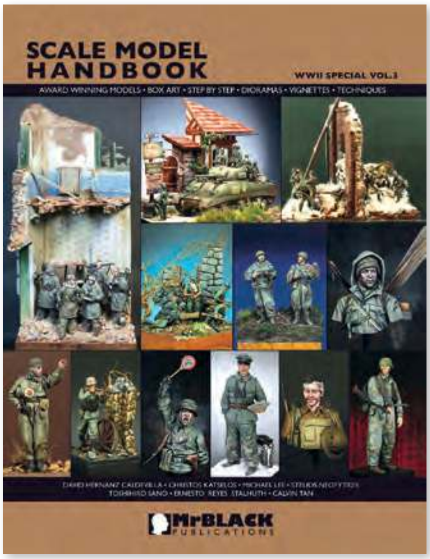
David Grummitt

PANZER ACES
Profiles II
Guide to camouflage of the German Tar
1943-1945





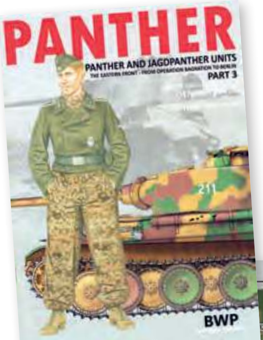
Title: Scale Model Handbook: WWII Special Volume 3
Author: David Hernanz Caldevilla et al
Publisher: Mr Black Publishing
ISBN: 977-2-45933-1-004
Price: €24.95 (pb)


SCALE MODEL HANDBOOK
WWII SPECIAL VOL.3
AWARD WINNING MODELS • BOX ART • STEP BY STEP • DIORAMAS • VIGNETTES • TECHNIQUES
MrBLACK PUBLICATIONS

The latest volume in the Scale Model Handbook series will have a special resonance for armour modellers and many readers of this magazine. It is devoted to World War II subjects and seven of the twelve subjects are in 1/35 subject. The first fifteen pages, for instance, are dedicated to a superb Normandy diorama of American GIs and a Sherman. Similar articles, although less extensive, cover German and Soviet 1/35-scale subjects in Hungary, Leningrad and during Operation Barbarossa (the latter two demonstrating just what can be done with today's plastic figures). Other features include three large scale busts of German, French and British subjects. There are also two beautiful 1/16-scale figures. All in all, this is a really excellent addition to the Scale Model Handbook series and contains some really inspirational pieces. The articles are well written and informative and the presentation first class. Highly recommended. Our thanks to Stelios at Mr Black Publishing (www.mrblackpublications.com) for the review copy.

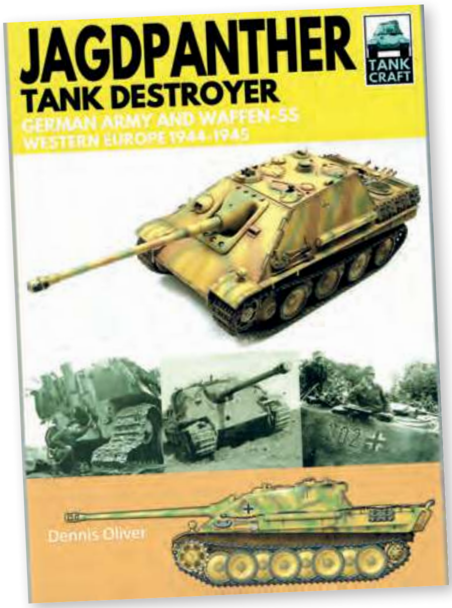
David Grummitt

Title: Panther and Jagdpanther Units: The Eastern Front – From Operation Bagration to Berlin Part 3
Author: Dennis Oliver and Stephen Andrew
Publisher: Bookworld Publishing
ISBN: 978-1-91264-9-006
Price: £14.99 (pb)



This is the final volume in Dennis Oliver's guide to the Panther and Jagdpanther units of the German armed forces of World War II. It's a slim volume, but it's packed full of carefully researched information, rare archival photos and some beautiful profiles and uniform illustrations by Stephen Andrew. The units covered are the named divisions of the Heer (Grossdeustchland and others), independent Panzer Brigades, the Waffen SS and the Fallschirm-Panzer-Division Hermann Göring. The period covered is the last year of the War and there are some great examples of unusually camouflaged and marked Panthers that will provide fantastic inspiration for any of the new Panther kits that are now hitting the market. The interpretation of the camouflage colours is more conservative than the Acción Press book. Highly recommended, like the previous volume we reviewed last year, it's an excellent and concise account of the Panther during the cataclysmic last months of the War on the Eastern Front. Our thanks to Justin at Bookworld Wholesale (www.bookworldws.co.uk) for the review copy.

David Grummitt



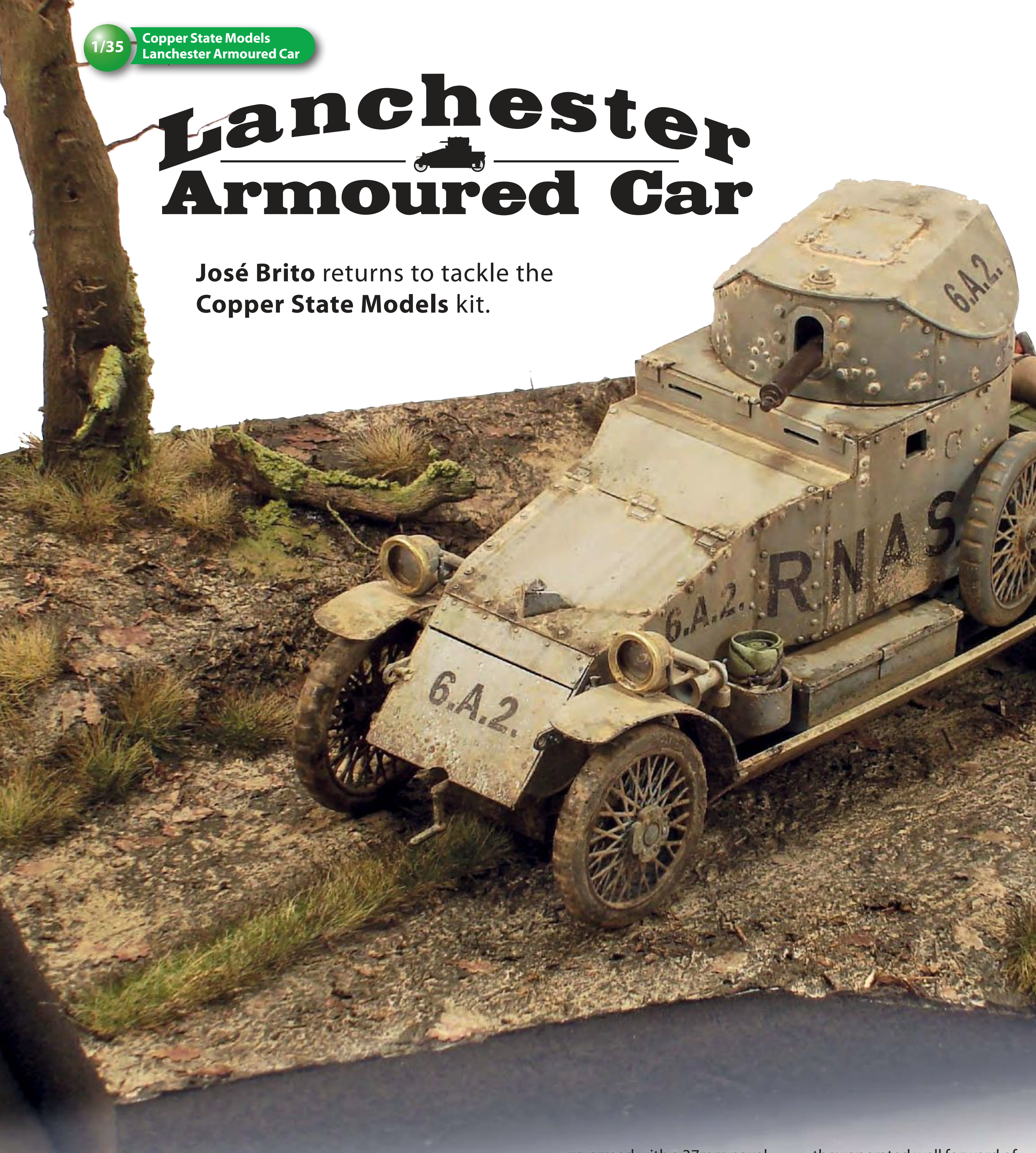
Title: Jagdpanther Tank Destroyer: German Army and Waffen-SS Western Europe 1944-1945
Author: Dennis Oliver
Publisher: Pen and Sword
ISBN: 978-1-52671-0-895
Price: £14.99 (pb)

Sticking with the Panther theme and also from the pen of Dennis Oliver, this volume in the Tank Craft series published by Pen and Sword offers an accessible and concise introduction to the researching the combat service of Jagdpanther tank destroyer on the Western Front and modelling this vehicle. The bulk of this 64-page book provides a handy combat history of the vehicle, arranged by unit, on the Western Front. This is complemented by some excellent colour profiles by Stephen Andre, very much in the style of those in the previous title. Eight pages of profiles pretty much cover the entire history of the Jagdpanther on the Western Front. This history is interrupted in the middle by an extended modelling section. There are two 1/35-scale builds and a 1/72-scale build here, as well as an extended discussion of the kits and accessories available to model the Jagdpanther in all the major scales from 1/16 to 1/72. I found this section particularly helpful and a very nice feature of this series. If you're thinking of building a Jagdpanther, then I certainly think you should consider adding this to your library. Highly recommended and we'll be looking at other titles in the series on the T-34 and the Panzer I/II next month. Our thanks to Pen and Sword (www.pen-and-sword.co.uk) for the review copy, it's available from all good book shops.

David Grummitt

Lanchester Armoured Car

José Brito returns to tackle the **Copper State Models** kit.

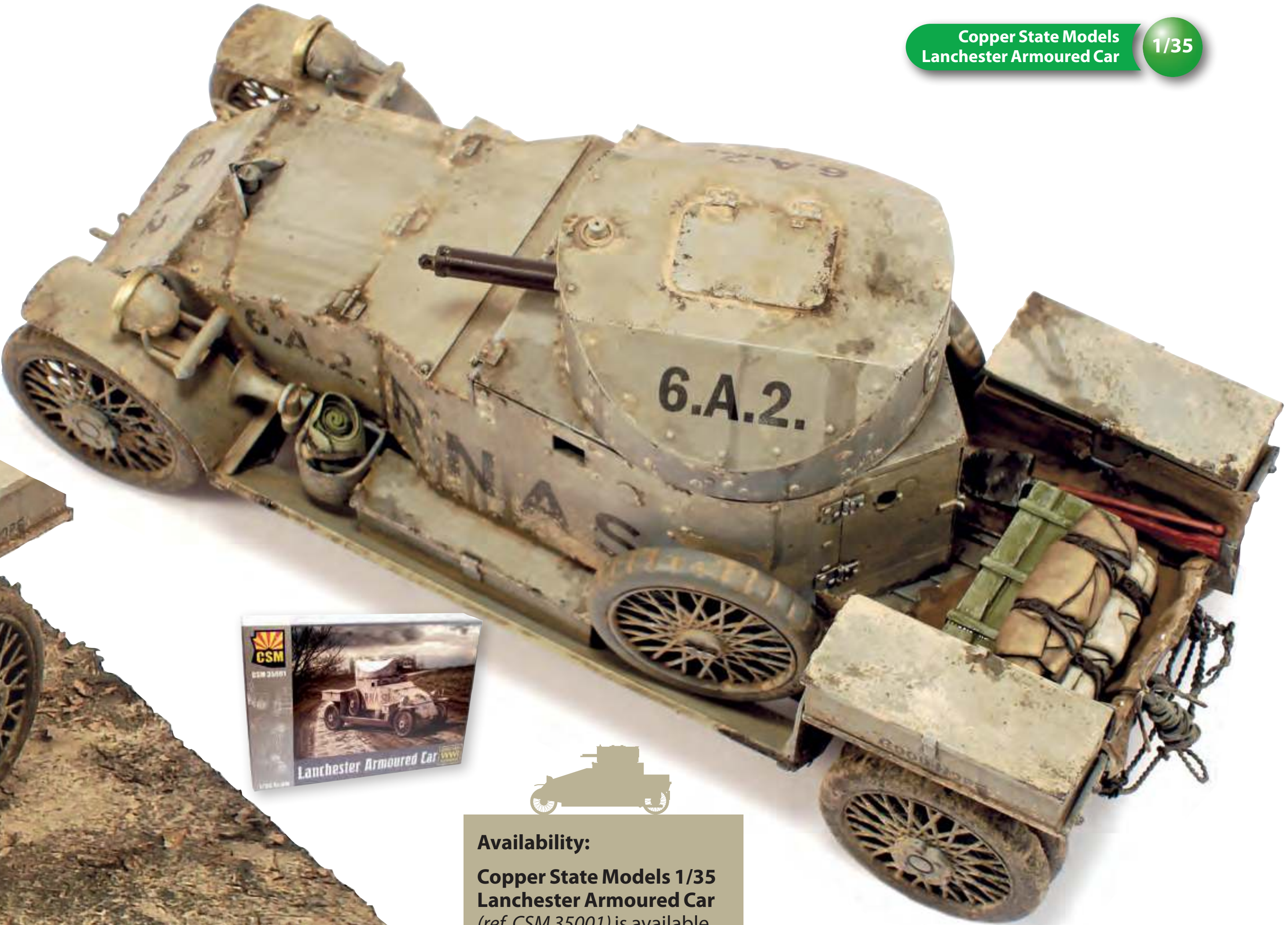


The Lanchester 4x2 was the second most numerous armoured car in service during World War I. Designed by the Admiralty Air Department for the Royal Naval Air Service, it was intended to support air bases and to retrieve downed pilots. The production version featured a circular turret with a narrow horizontal roof, central hatch, steeply sloped at the sides, and continuous sloped bonnet plating. This, together with a more compact form than the earlier Rolls-Royce Armoured Car (achieved by positioning the driver beside the engine), gave the Lanchester a deceptively modern appearance.

Thirty-six of the production versions were sent to France in May 1915. One twelve-car RNAS squadron served with the Belgian Army. In addition, Belgium received between ten and fifteen cars on loan from the RNAS. Later that year, all thirty-six RNAS armoured cars were returned to Britain, and following complete overhaul, twenty-two were supplied to the Imperial Russian Army. Of these, nineteen were later re-armed with a 37mm naval Hotchkiss gun in place of the standard Vickers machine-gun.

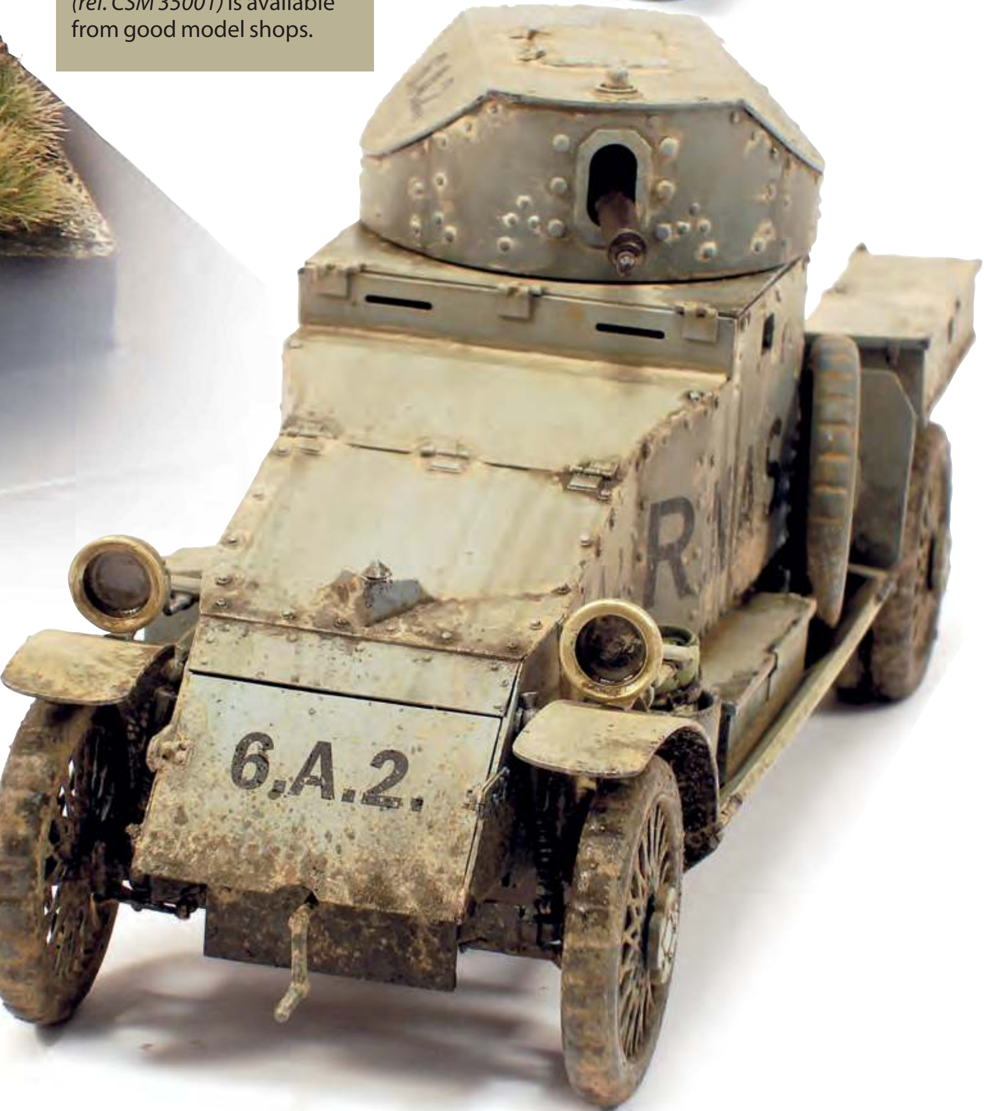
In January 1916, a further batch of Lanchesters arrived with the RNAS Expeditionary Force deployed to the Caucasus, Romania and Galicia in support of the Russians. Operating in climates ranging from desert to near-Arctic conditions, the vehicles covered over 53,000 miles. They were deployed in a manner that would become the standard for AFV warfare in the twentieth century. Acting as scouts and armed raiders, they operated well forward of the infantry in their armoured trucks. When operating alongside the infantry, they would act as fire-support vehicles. Their last operation was in support of the Brusilov Offensive in mid-1917.

With the outbreak of the Bolshevik Revolution, the RNAS Armoured Car Division was withdrawn back to Britain, while the Lanchesters still in Russian hands were used by the White Russian forces. (Source: www.copperstatemodels.com)


6.A.2.
RNAS
CSM
Lanchester Armoured Car

Availability:

Copper State Models 1/35 Lanchester Armoured Car *(ref. CSM 35001)* is available from good model shops.



1/35 Copper State Models Lanchester Armoured Car

1 Released last year, the **'Lanchester Armoured Car'** *(ref. CSM 35001)* was the first 1/35-scale kit produced by **Copper State Models**. Even before examining the contents, I was immediately impressed by the spectacular box-art. On opening the box, I was presented with a range of high-quality plastic components, a small sheet of decal markings, and logically arranged assembly instructions.

2 Several sprues hold the necessary parts, which are both highly detailed, and without any traces of flash. Though mould seams are present, these are minimal, and can be easily removed. Thanks to excellent parts-fit, construction was notably straightforward.

3 Most of the assembly was carried out using Deluxe Materials' 'Plastic Magic', an ultra-thin glue that works best through capillary action.

4 While the kit can be simply built from the box, I decided to replace some of the grab handles with lengths of wire (bent to the desired shape), having first opened up the location points with an appropriate sized drill bit.

5 Any noticeable seam lines were attended to with a fine-grade flexi-sander.

6 Based on various period photographs, I decided to add a canvas sheet to the rear deck of the vehicle.

7 Made from a thin piece of aluminium, this was torn in various places, and stitching holes added using a pounce wheel.

6.A.2.
RNAS
6.A.2.

8 To provide further interest, I included a scratch-built grappling hook, and a length of rope attached to the rear towing points.

9 With the basic assembly complete, I was ready to move on to the painting stage.

10 Before applying any paint, I immersed the model in warm soapy water to remove any surface grease and dust particles.

11 Having allowed the model to fully dry, I applied several light coats of Vallejo 73.603 (Surface Primer – Ger. Panzer Grey).

12 References show the base colour on these vehicles to have been 'Admiralty Light Grey'.

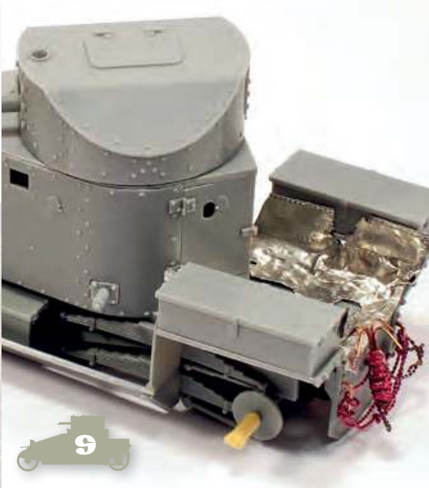
13 Using a combination of 71.051 (Neutral Grey), 71.050 (Light Grey) and 71.046 (Pale Grey), I took advantage of the slightly different shades to emphasise areas of natural shadow and highlights.

14 Areas that would receive the decal markings were first prepared with a thin layer of gloss varnish, and the decals themselves applied with the help of Vallejo's 'Decal Fix' and 'Decal Medium'. Once dry, they were sealed with a coat of matt varnish.

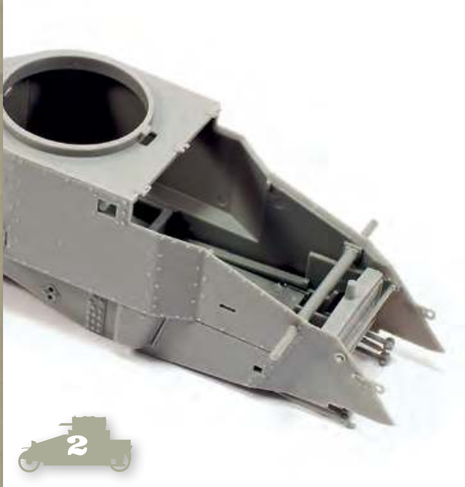
15 Having sourced Value Gear Details' 'Universal Stowage' set, I selected appropriate items, and mounted each on a cocktail stick in preparation for painting.

16 Again, these were treated to a coat of primer, and individually painted using colours from Vallejo's Model Color range.

vallejo
3 Dual-Grit Flexi Sanders
90x18x12mm
600/1000
5



71.051 NEUT
MODEL Air
AV
71050 LI
MODEL Air
AV
13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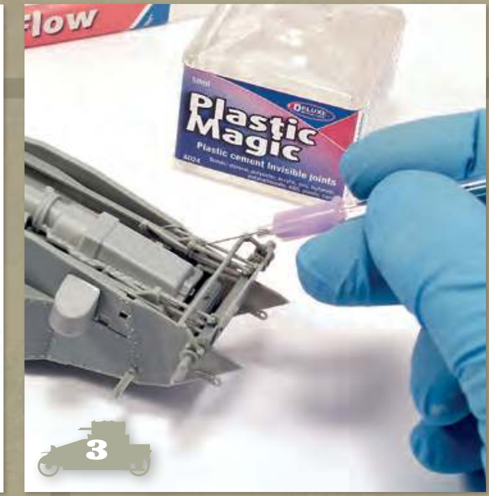
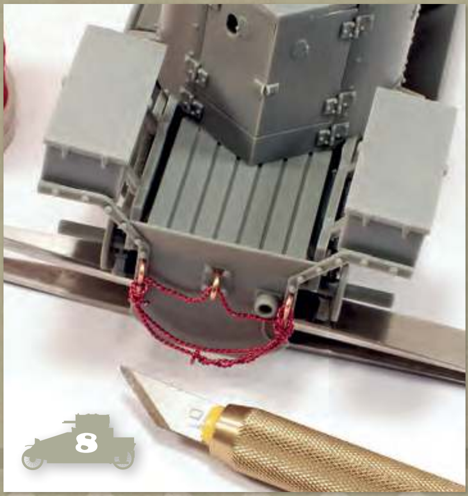

Plastic Magic
Plastic cement Invisible joints
3

4

6

7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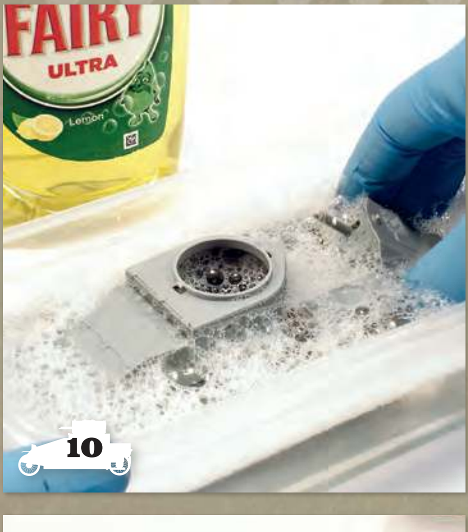
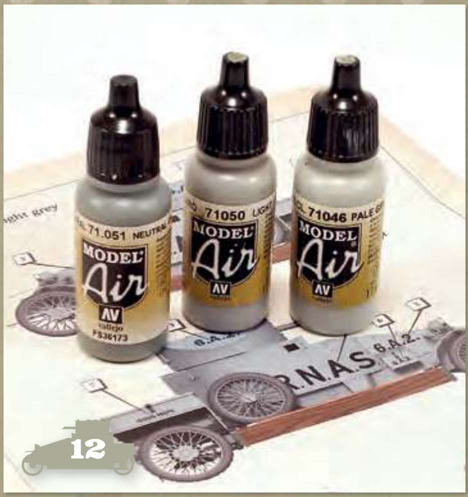
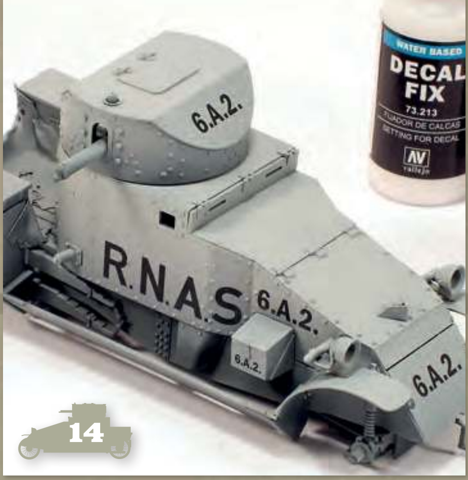

FAIRY
ULTRA
Lemon
10

11


71.051 NEUTRAL
71050 LIGHT
71046 PALE
Model Air
R.N.A.S 6.A.2.
12


DECAL FIX
73.213
R.N.A.S 6.A.2.
6.A.2.
14

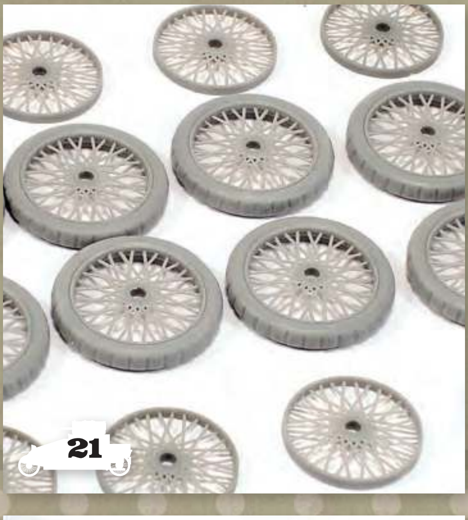
15

16

17
R.N.A.S
6.A.2.
70.884 STONE GREY

18

19


21

22

23

25

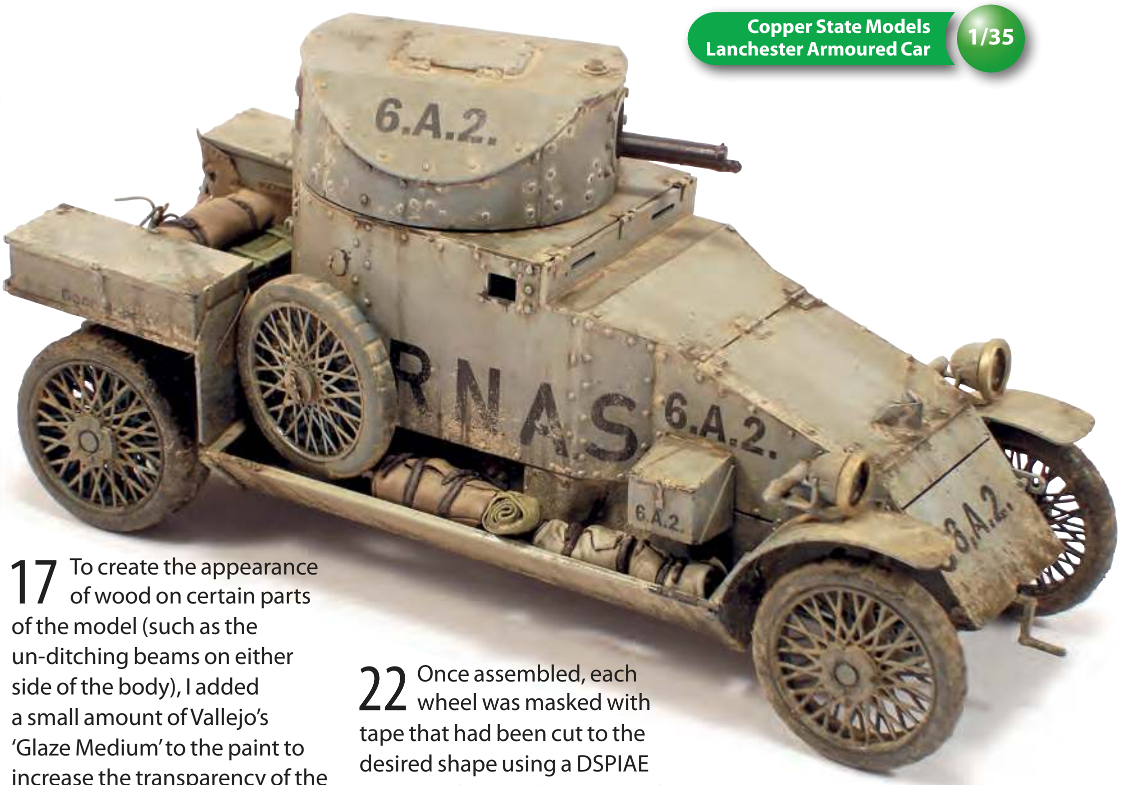
26

27
vallejo
Pick Up Tool
6.A.2.

29
VALLEJO PIGMENTS
6.A.2.

30

31
Environment
73.822 SLIMY GRIME DARK
73.823 SLIMY GRIME
6.A.2.



17 To create the appearance of wood on certain parts of the model (such as the un-ditching beams on either side of the body), I added a small amount of Vallejo's 'Glaze Medium' to the paint to increase the transparency of the colours, and 'Retarder Medium' to extend the drying time.

18 A similar treatment was given to the canvas sheet.

19 The stowed rope and grappling hook were painted with 822 (SS Cam. Black Brown).

20 Using the same colour, this time applied with a piece of sponge, I replicated superficial scratches, together with more extensive damage to the vehicle's paintwork.

21 With the main part of the model put to one side, I made a start on the wheels.

22 Once assembled, each wheel was masked with tape that had been cut to the desired shape using a DSPIAE MT-S Stepless Circle Cutter and the inner portion airbrushed with my Vallejo Surface Primer.

23 Further masking, and a light grey applied to the rims and spokes …

24 … and finally the tyres, using 71.051 (Neutral Grey). Note that tyres on early vehicles tended to be much lighter in colour than those on modern vehicles.

25 With the final masking removed, the wheels were ready to be installed on the model.

26 Having attached the wheels and stowed equipment, I was ready to begin the weathering process.

27 Positioning the headlight lenses was made much easier using Vallejo's 'Pick Up Tool' (ref. T12002).

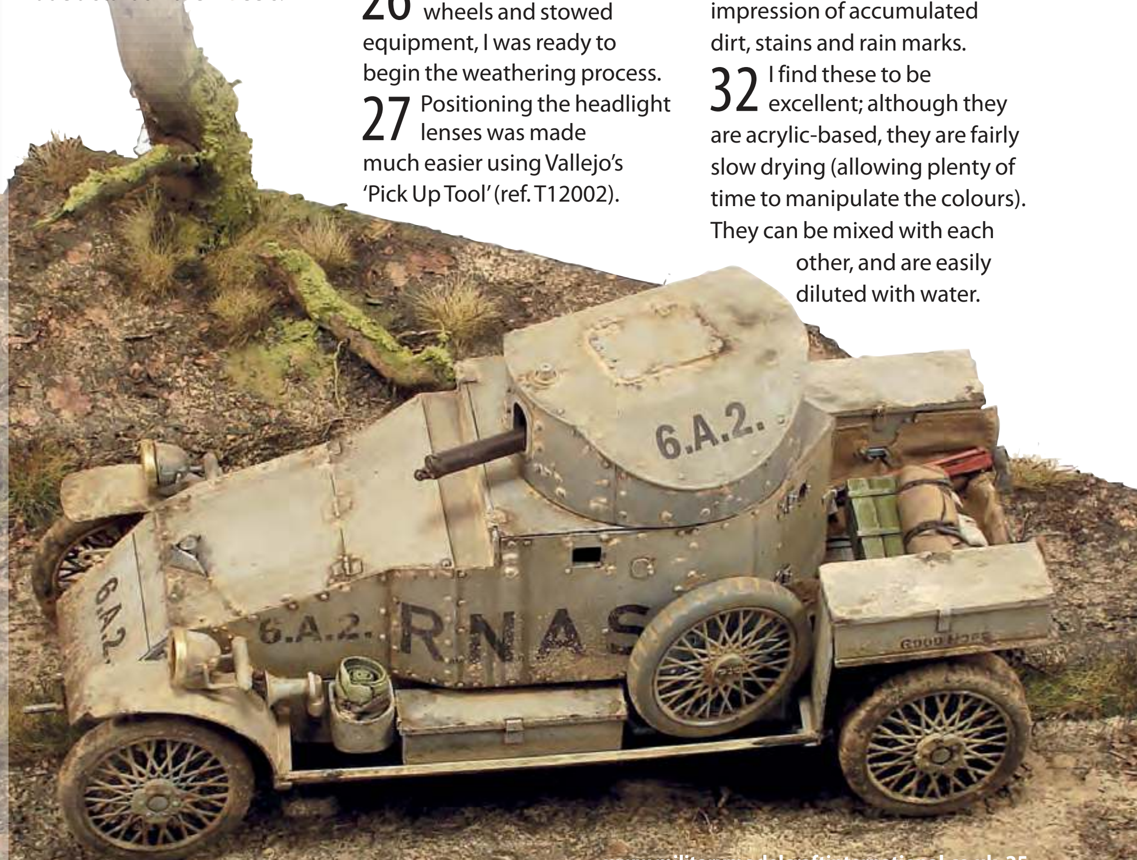
28 Following an overall wash, the model was allowed to dry, and a selection of Vallejo pigments (diluted with Airbrush Thinner) were applied to specific areas.

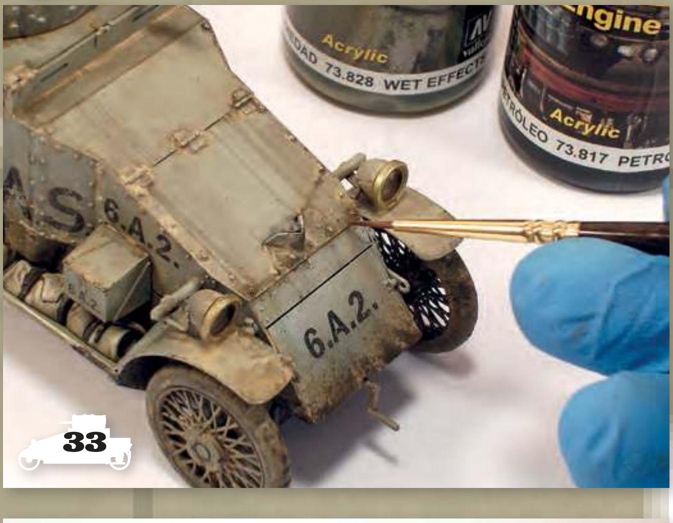
29 Again, allowing these to fully dry, I proceeded to remove any excess pigment using a sponge moistened with water.

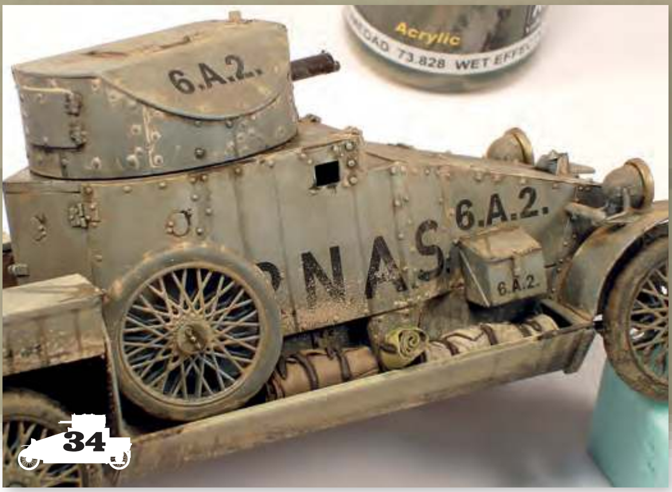
30 Ready now for the final weathering stage …

31 Various colours from Vallejo's 'Environment' range were applied to give the impression of accumulated dirt, stains and rain marks.

32 I find these to be excellent; although they are acrylic-based, they are fairly slow drying (allowing plenty of time to manipulate the colours). They can be mixed with each other, and are easily diluted with water.




Acrylic
73.828 WET EFFECTS
Engine
Acrylic
PETRÓLEO 73.817 PETROL
6.A.2.
33


Acrylic
73.828 WET EFFECTS
6.A.2.
RNAS
34

33 Because Vallejo acrylics can be intermixed, it is possible to create some convincing effects by combining 'Wet Effects' (from the 'Environment' range) and 'Petrol Spills' (from their 'Engine' range).

34 Finishing touches, once again using colours from the 'Environment' range.

35 To place the completed model in context, I decided to incorporate it in a simple vignette, and began with a picture frame to form the base.

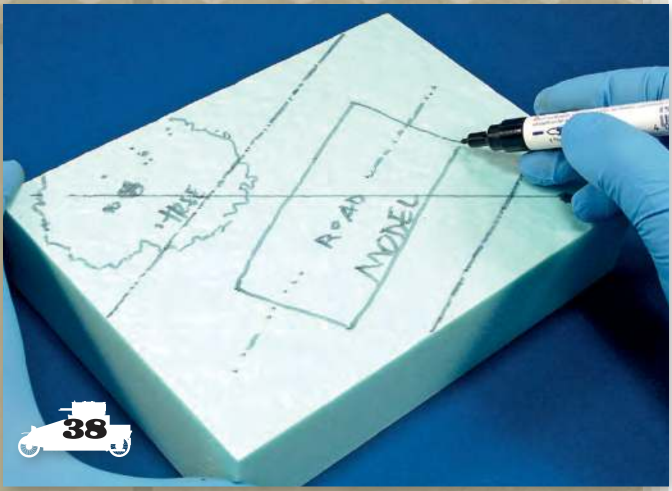
36 Into this, I added a piece of heat isolation foam to create the foundation for the groundwork.

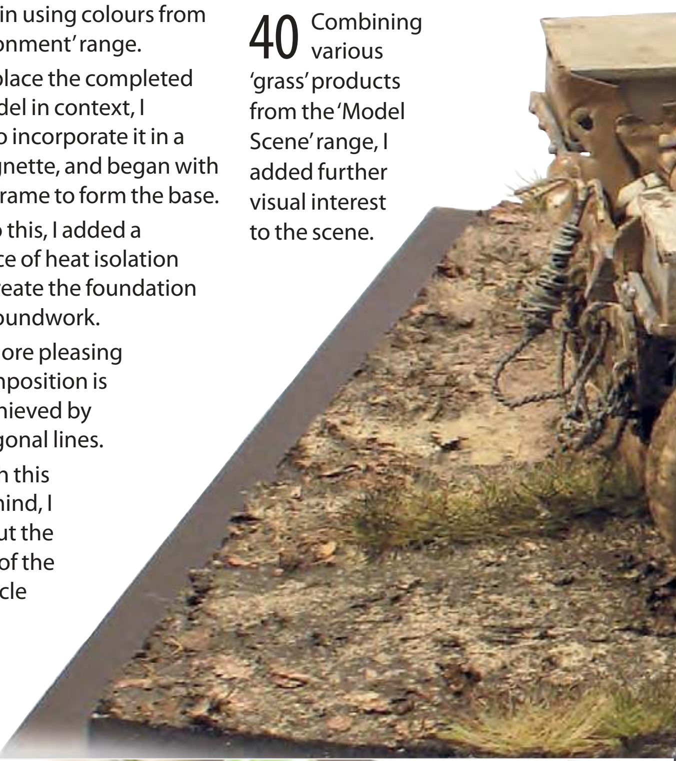
37 A more pleasing composition is always achieved by using diagonal lines.

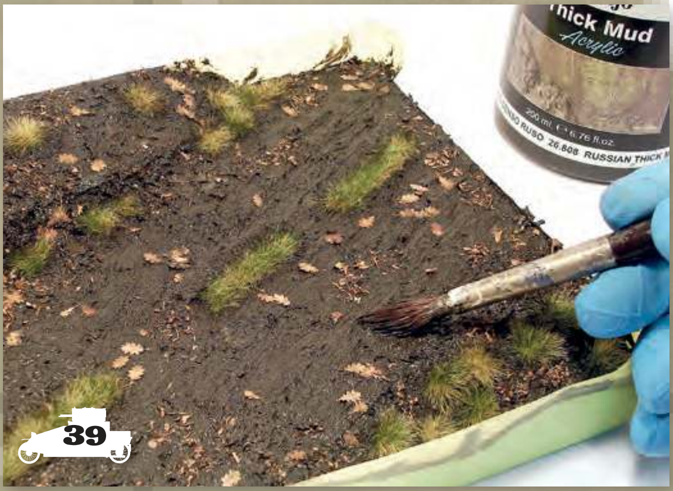
38 With this in mind, I marked out the positions of the road, vehicle and tree.

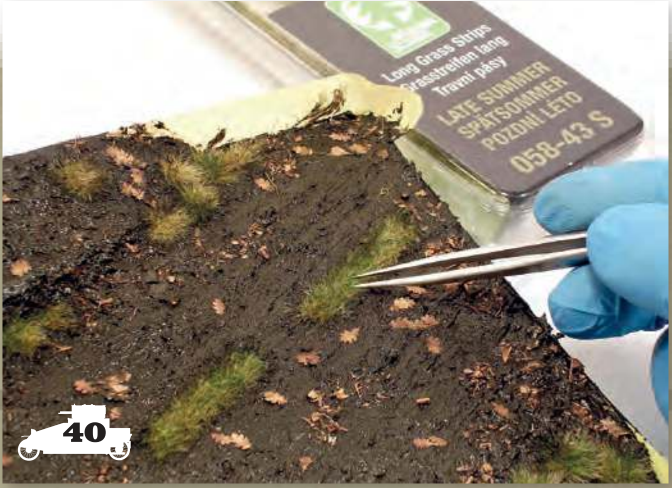
39 The foam was now covered with a layer of 26.808 (Russian Thick Mud). This is a particularly versatile product; it can be applied directly from the jar or diluted with water to create a convincing texture to the groundwork.

40 Combining various 'grass' products from the 'Model Scene' range, I added further visual interest to the scene.


TREE
ROAD
MODEL
38




Thick Mud
Acrylic
200 ml 6.76 fl.oz.
RUSO 26.808 RUSSIAN THICK
39


Long Grass Strips
Grasstreifen lang
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058-43 S
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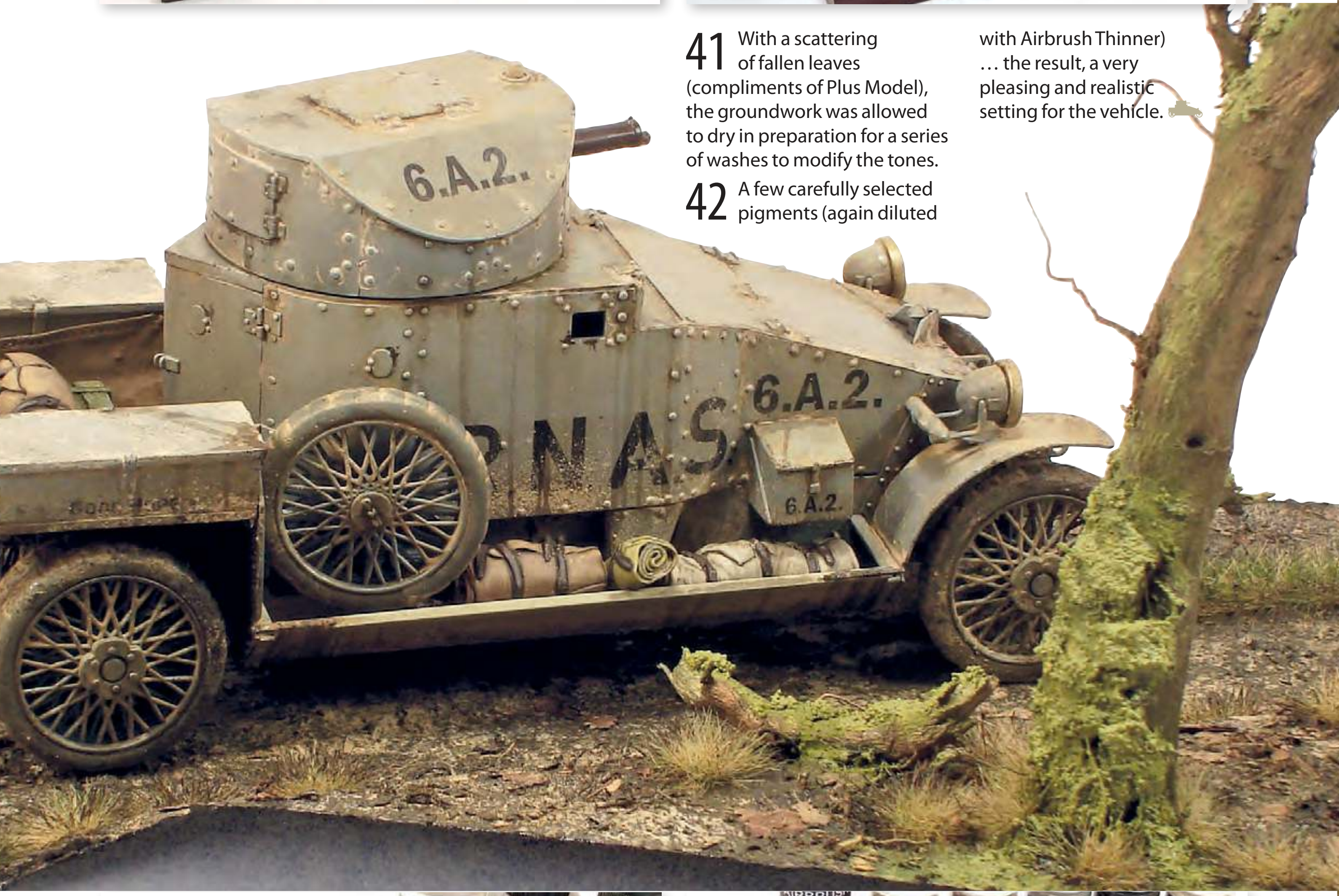
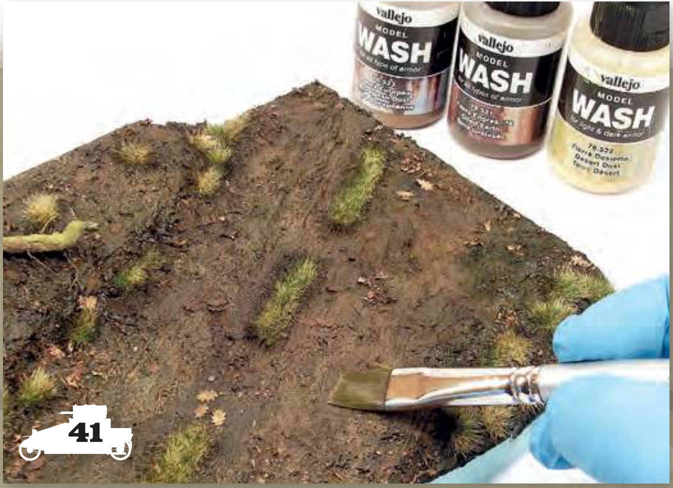


41 With a scattering of fallen leaves (compliments of Plus Model), the groundwork was allowed to dry in preparation for a series of washes to modify the tones.

42 A few carefully selected pigments (again diluted with Airbrush Thinner) … the result, a very pleasing and realistic setting for the vehicle.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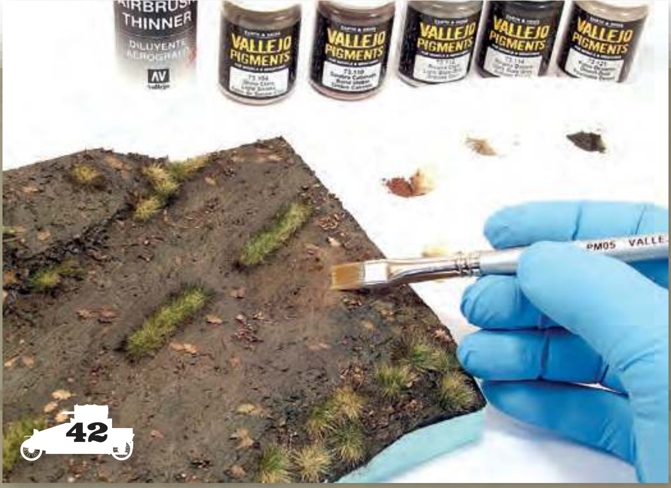

42

AUTUMN SADNESS

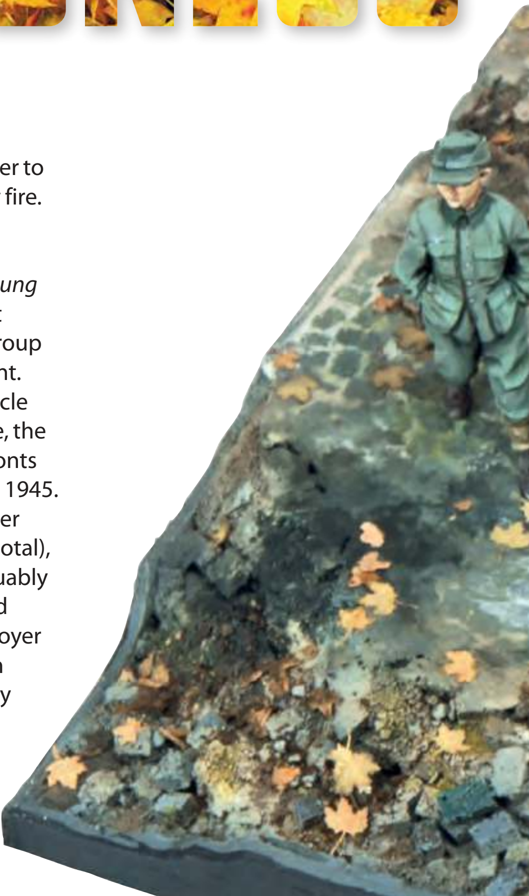
José Luis Lopez builds a Quarterscale tank hunter.

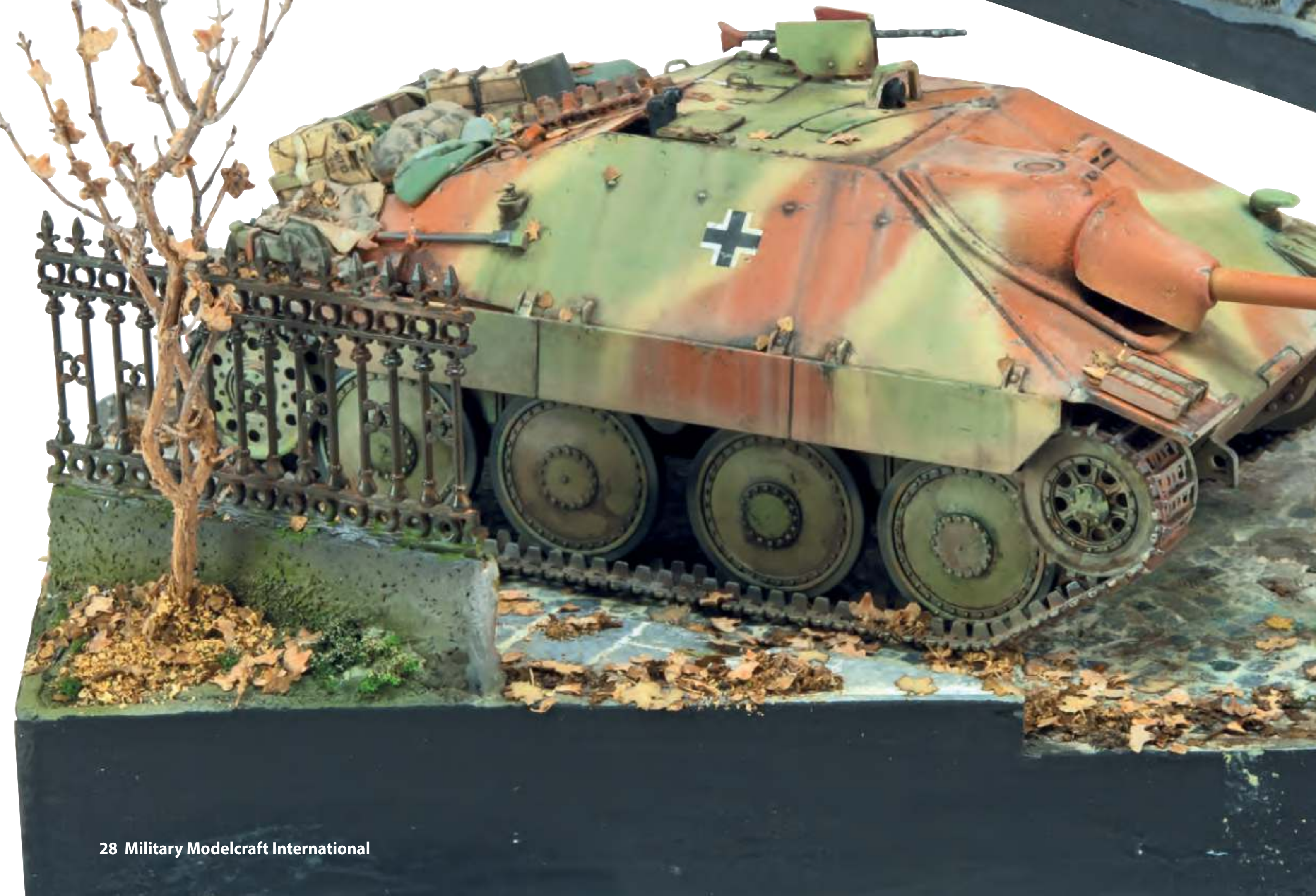
A relatively small but effective tank hunter, the Jagdpanzer 38(t) (later referred to as *'Hetzer'*) was the perfect example of a sound and well-balanced design. It was based on the modified chassis of the Panzer 38(t), a vehicle of Czech origin that had become an important addition to the Panzerwaffe arsenal during the first years of the Blitzkrieg. This light tank was soon found to be inadequate to deal with the new battleground threats, but it proved itself to be the perfect base on which to develop a tank hunter vehicle (amongst others).

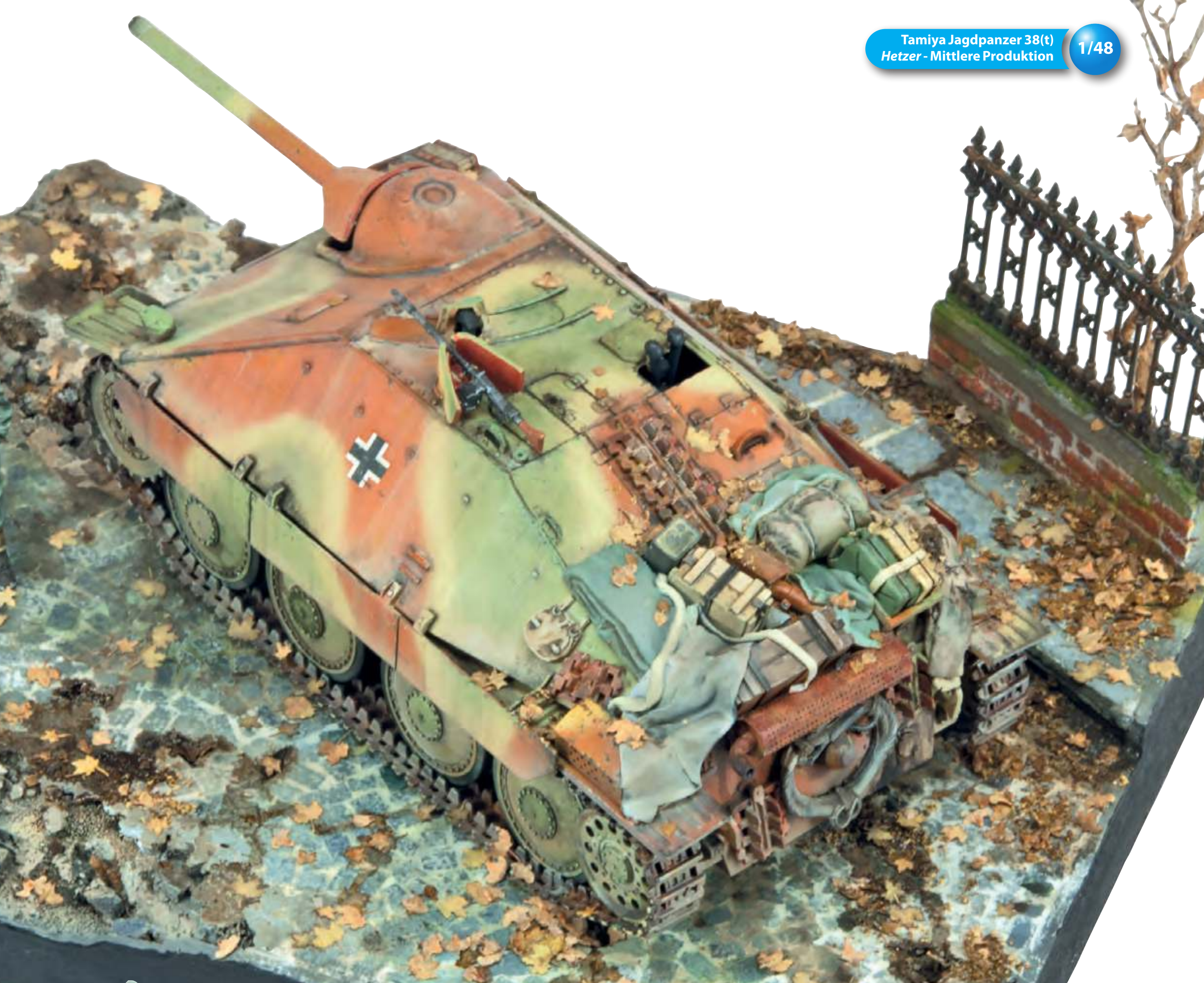
In order to reduce production costs (as compared with the Jagdpanther and Jagdtiger designs), the new vehicle was built on a widened and lengthened 38(t) chassis, with modified suspension, larger road-wheels, a more powerful engine, and (due to increased weight and sloped armour) wider tracks. The main armament was the 75mm PaK L/88, at the time capable of dealing with most Allied tanks at close range. Assigned to infantry divisions, it was very useful in the ambush role. However, a combination of thin side-armour and limited traverse to the main gun gave the *Hetzer* a distinct disadvantage. Its remotely controlled machine gun was very popular with the crews, though re-loading the weapon required the crew member to expose himself to enemy fire.

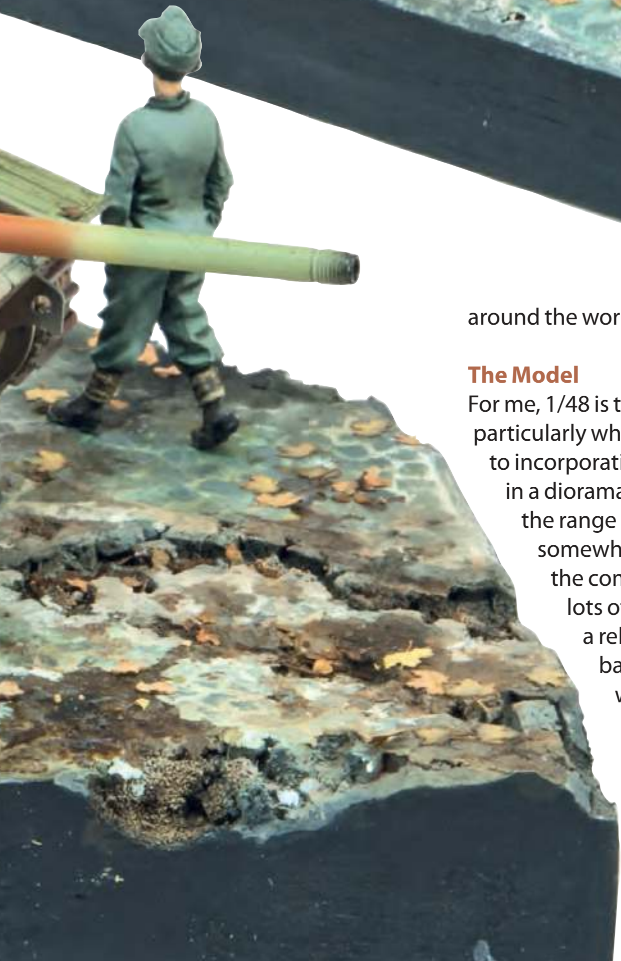
The Jagdpanzer 38(t) entered service with the *Heeres Panzerjäger-Abteilung 731* in July 1944. This unit was deployed to Army Group North on the Eastern Front. Later versions of the vehicle saw action in Italy, France, the Ardennes, and various fronts until Germany's defeat in 1945.

Due to the large number produced (over 2,800 in total), the Jagdpanzer 38 is arguably the most abundant World War 2 German tank destroyer remaining today (though many of these are actually post-war Swiss G-13 variants). In addition to numerous museum examples, several are in private collections









around the world.

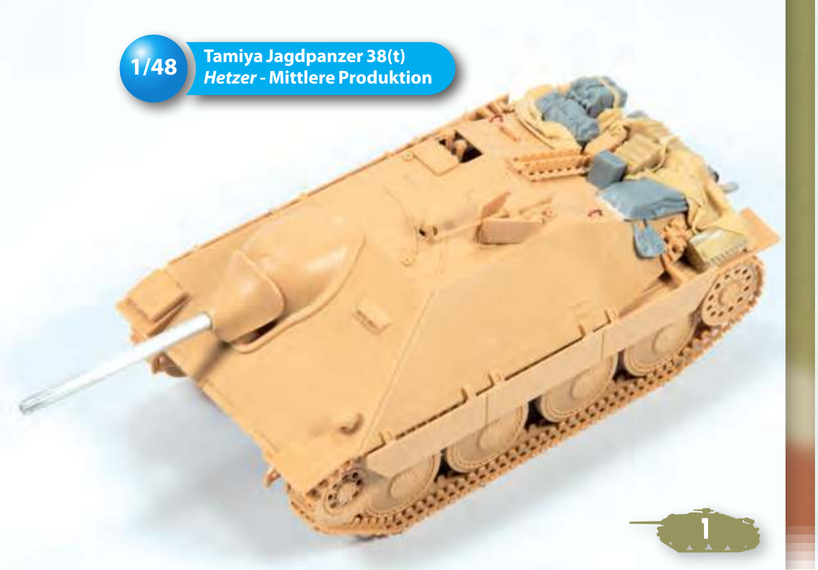
The Model

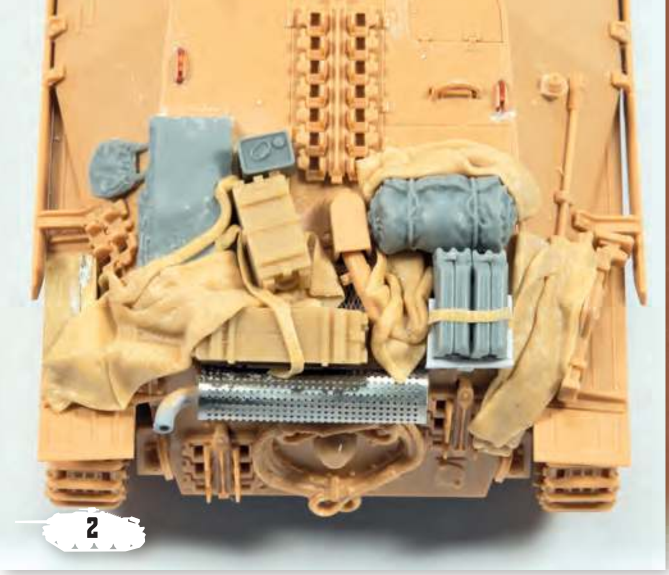
For me, 1/48 is the perfect scale, particularly when it comes to incorporating a model in a diorama setting. True, the range of figures is somewhat limited, but the compact size offers lots of potential using a relatively small base (compared with 1/35-scale models). The final year of the war in Europe has always attracted me as a modeller, not least because of the fascinating (sometimes crazy) designs of German armour at this point. Coupled with this were the last-bid weapons, the reliance on *'Volkssturm'* troops … and perhaps more sinister, the thousands of teenagers mobilised to face experienced Allied soldiers.

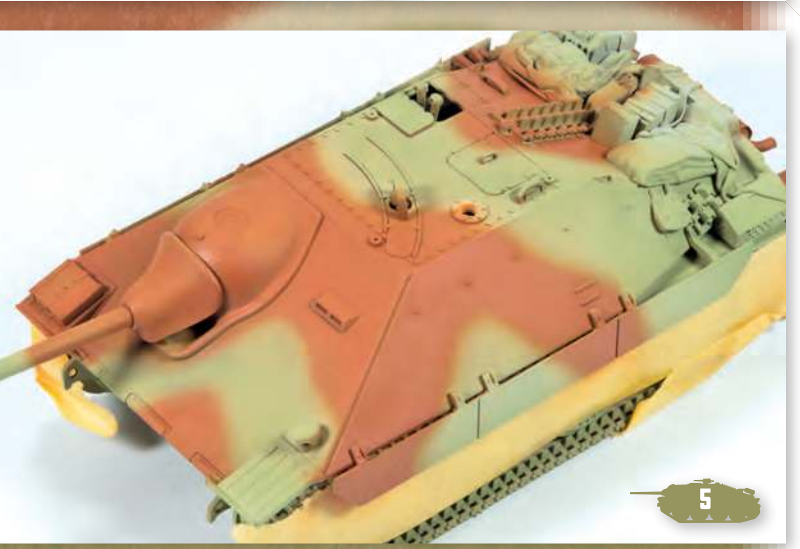
Availability:

Tamiya 1/48 Jagdpanzer 38(t) Hetzer – Mittlere Produktion *(ref. 32511)* is available from all good model shops.

TAMIYA
1/48
Jagdpanzer 38(t) Hetzer
Mittlere Produktion

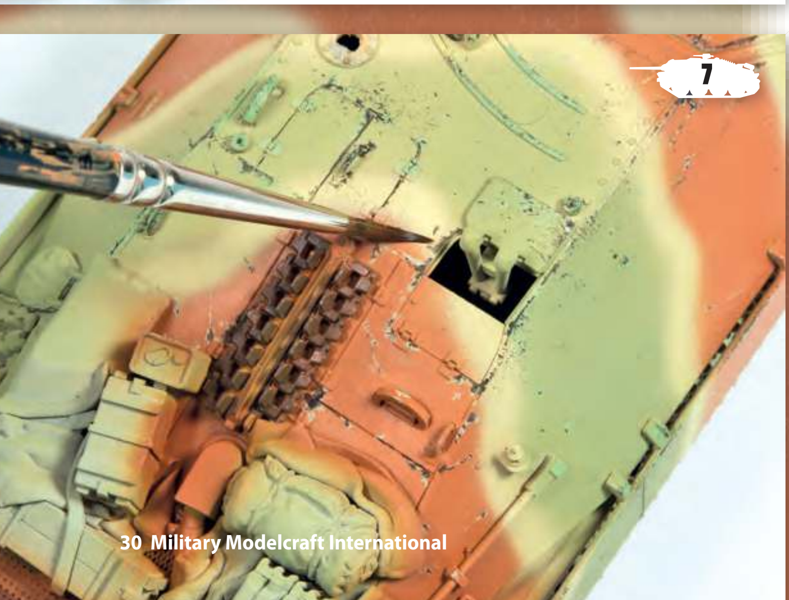


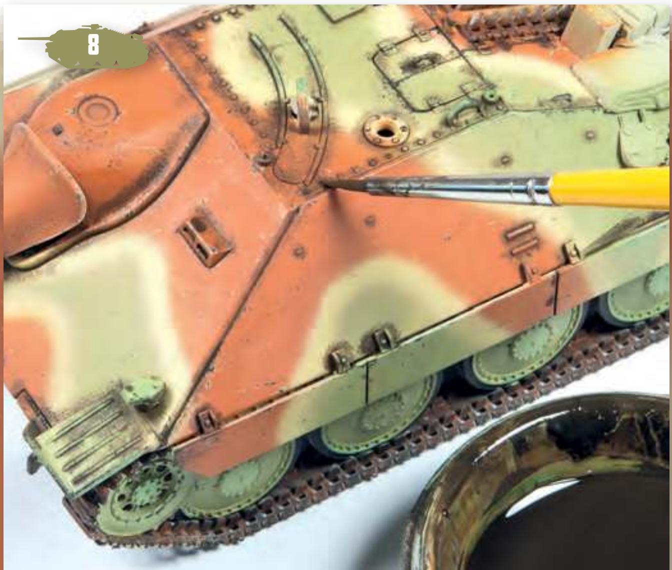




Released in 2005, **Tamiya's 'Jagdpanzer 38(t) Hetzer – Mittlere Produktion'** *(ref. 32511)* prompted criticism from various modellers. The main reason was the inclusion of a cast-metal hull tub, which tended to compromise detail in that area. While I can appreciate the disappointment, I found the kit itself a joy to build, even if it meant that I would have to make my own improvements along the way. So before making a start on the kit, I considered what additional items would be required. The first would be a turned-metal gun barrel to replace the kit's plastic version. I also invested in **Hauler's 'PE Detail Set'** *(ref. HLX48019)*, which would provide useful items such as the schürzen panels and perforated exhaust-silencer. As always, I replaced the moulded grab-handles with copper wire **(photo 1)**. The more obvious improvement was to add stowage to the rear hull, the ideal source being **Tamiya's 'Jerry Can Set'** *(ref. 32510)*. As well as jerry cans (both German and US-pattern), the set includes other useful items: fuel drums (again German and US-pattern), ammo pouches, field packs, medical bags, rolled canvas tarpaulins and US-style barracks bags. Clearly, not all items would be appropriate for this model, but at least I would have a ready supply for a future project. In fact, I made my own tarpaulins out of Tamiya's Epoxy Putty. And finally, the wooden boxes were from a resin set. While some modellers prefer to paint and weather stowed equipment before attaching to the vehicle, I find it more convenient to fit the items in place and paint them later **(photo 2).**

With the basic assembly complete, I applied an overall coat of Tamiya Primer, and gave the surfaces a light sanding to ensure a perfectly smooth finish **(photo 3)**. Having chosen AMMO's A.MIG-004 (Resedagrün) for the base colour, I added a small amount of white, AMMO's Transparator and Acrylic Thinner, and applied this in several light coats. Following a similar process, the two other colours were applied: A.MIG-010 (Dunkelgelb – Mid War) lightened with white; and a mix of A.MIG.040 (Medium Rust) and A.MIG-041 (Dark Rust), this





FINE
ENGLAND
3M
ULTRAFINE

3

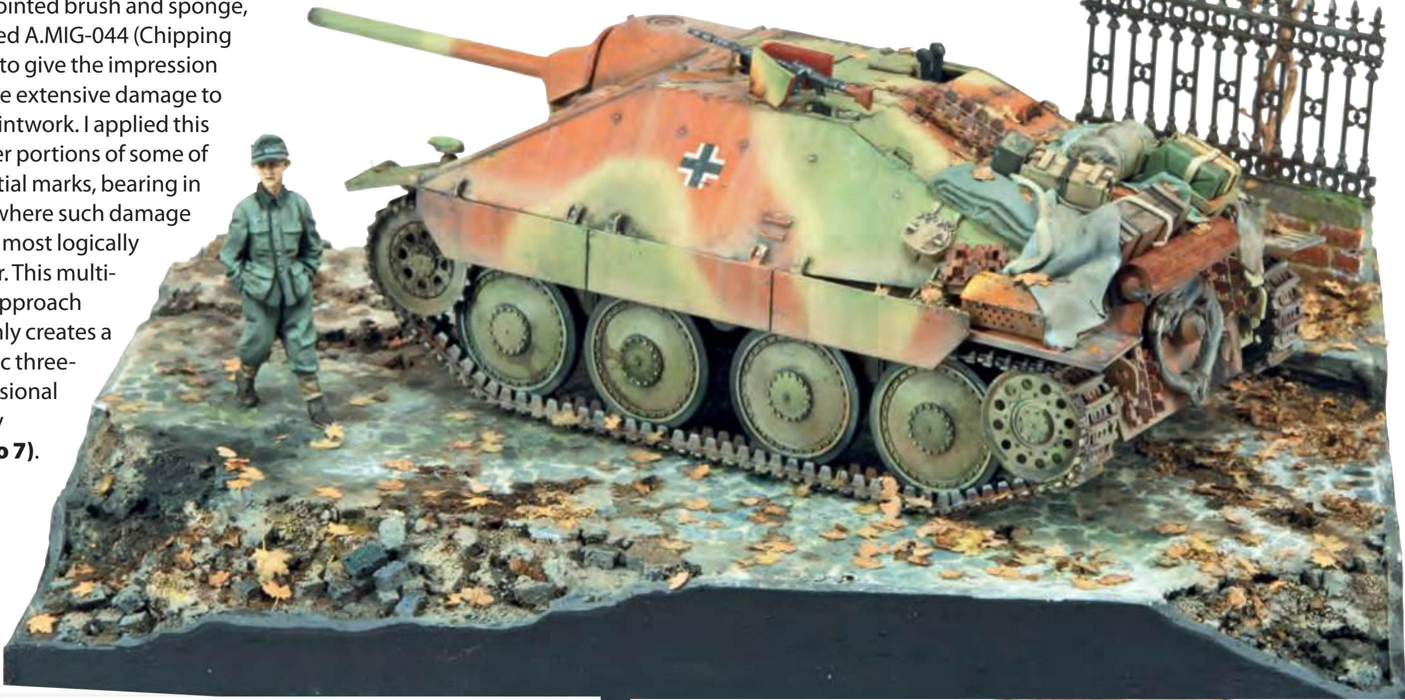
4

time lightened with A.MIG-048 (Yellow) **(photos 4-6)**.

Satisfied with the appearance of the camouflage scheme, I highlighted appropriate areas before making a start on the chipping effects. Adopting a two two-stage approach, I began by replicating surface scratches and superficial damage using a lighter shade of the respective base colours. Now using a combination of fine-pointed brush and sponge, I applied A.MIG-044 (Chipping Color) to give the impression of more extensive damage to the paintwork. I applied this to inner portions of some of the initial marks, bearing in mind where such damage would most logically appear. This multi-layer approach certainly creates a realistic three-dimensional quality **(photo 7)**.

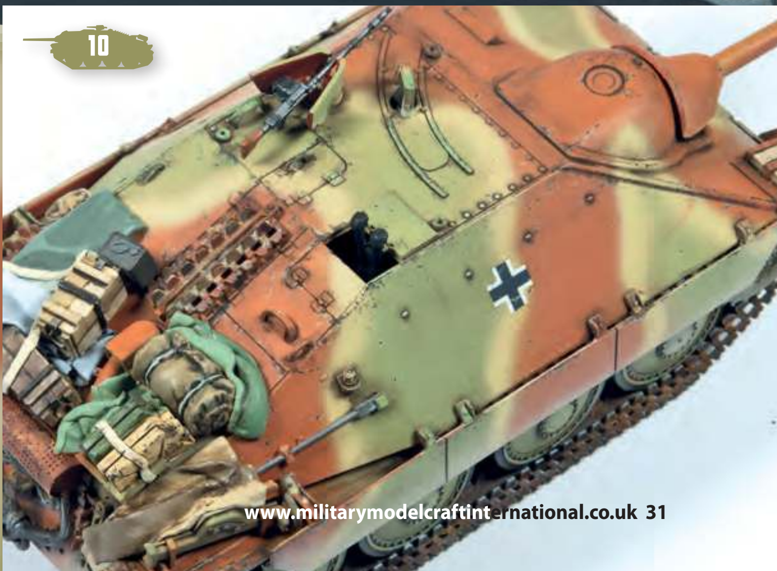
Following a protective coat of gloss varnish, the model was treated to an overall wash; a mix of A.MIG-1007 (US Modern Vehicles Wash) and A.MIG-1008 (Dark Wash), which would emphasise recesses and raised details. After a few minutes, I simply removed any excess wash with a soft brush moistened in odourless thinner **(photo 8**). Areas where markings were to be applied received a further coat of gloss varnish, and the decals positioned with the help of Microscale's Set & Sol products. Once these were fully dry, I extended the chipping effects over the markings, and sealed them with yet another coat of gloss varnish **(photo 9)**.

Rather than treating the accessories as an afterthought, it is important to paint and weather them in keeping with the rest of the vehicle; to a large degree, they too would be affected by dirt, dust, rain and surface damage. It is also worth trying to differentiate between the various materials (again achieved by careful use of colour and weathering effects) **(photo 10)**.



AMMO Synthetic Flat Brush
213 213
1/48
TAMIYA

9



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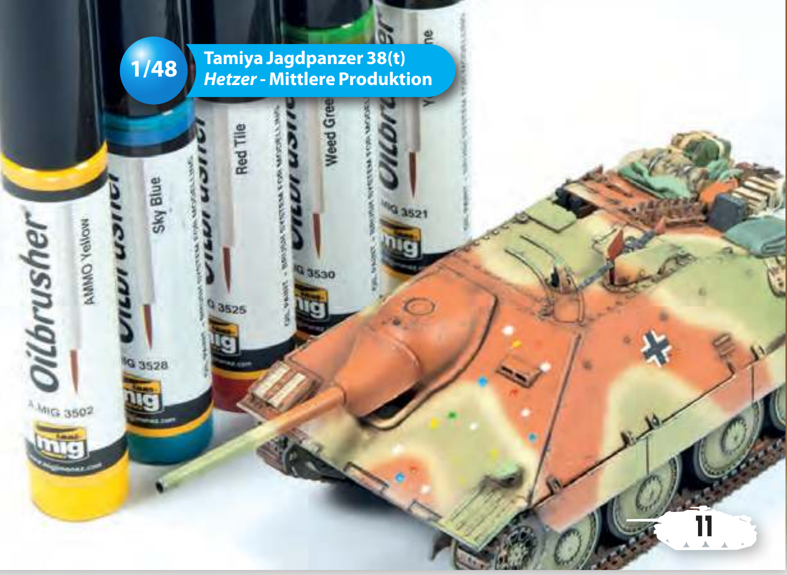
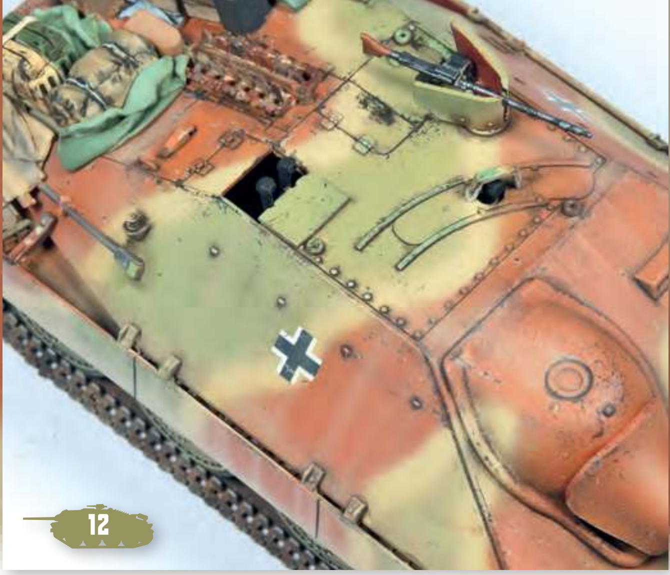

Oilbrusher
AMMO Yellow
Sky Blue
Red Tile
Weed Green
mig

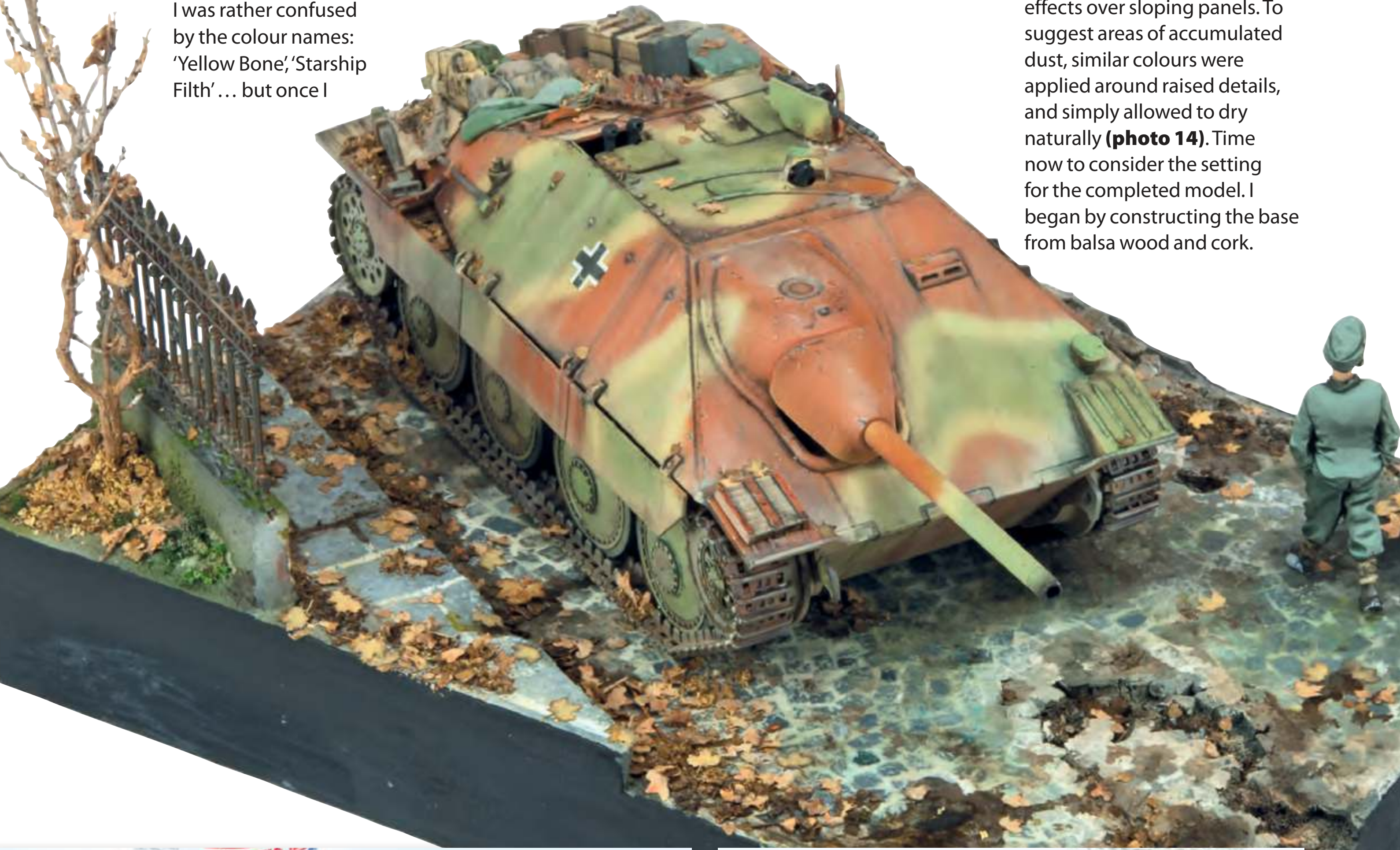
11

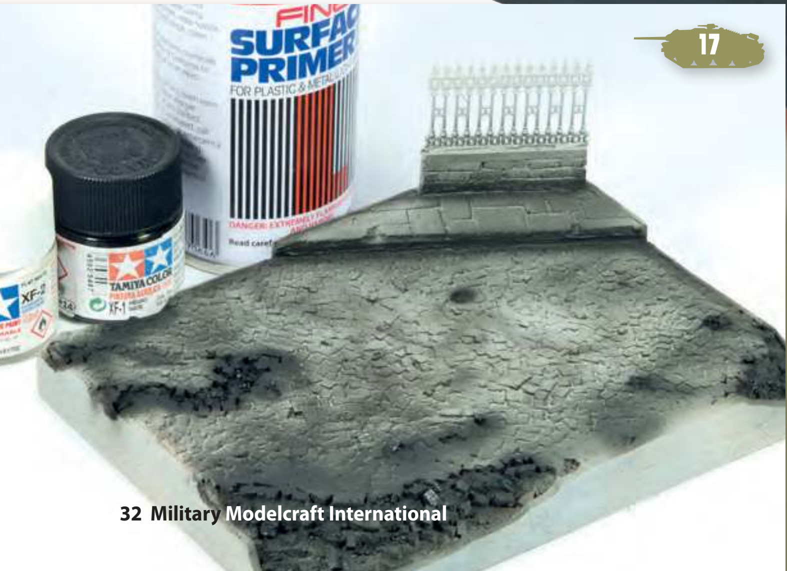


12

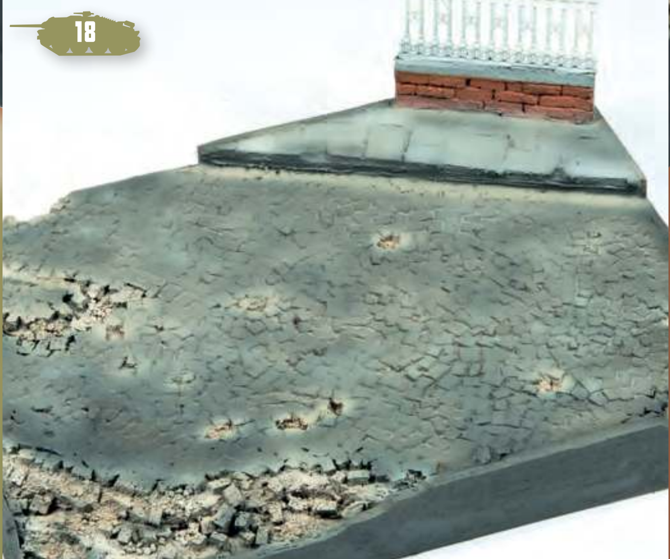
For some time now, I have been aware of AMMO's 'Oilbrushers' range, but this was my first attempt at using them. Initially, I was rather confused by the colour names: 'Yellow Bone', 'Starship Filth' … but once I got used to these, I found them really easy to apply. Employing the now-familiar 'oil dot' technique, I was able to recreate faded paintwork, together with picking out specific details **(photos 11 -13)**.

Returning to my acrylic paints, I chose a range of colours (ranging from buff to very dark brown). Once diluted, these were used to create striking effects over sloping panels. To suggest areas of accumulated dust, similar colours were applied around raised details, and simply allowed to dry naturally **(photo 14)**. Time now to consider the setting for the completed model. I began by constructing the base from balsa wood and cork.




FINE SURFACE PRIMER
FOR PLASTIC & METAL
TAMIYA COLOR
XF-1
XF-2

17



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13

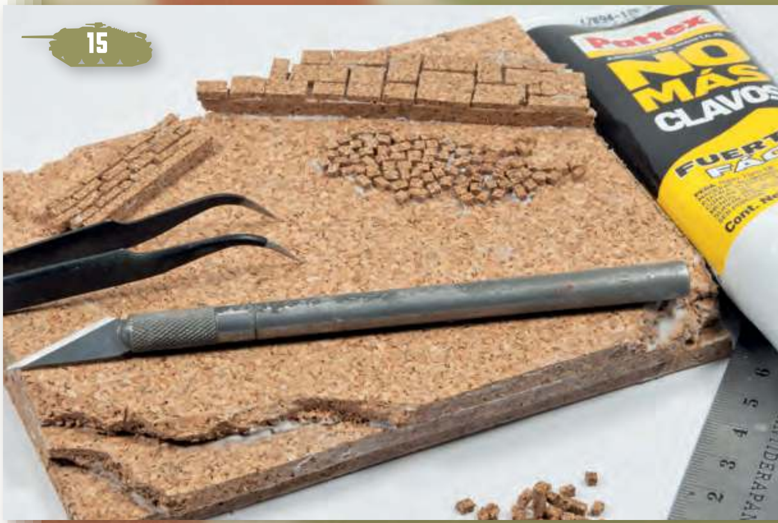
14

Groundwork

The height of the base is achieved gluing several layers of cork and cutting the cork in several shapes, I created the bricks, the pavement and the sidewalk stones **(photo 15)**. It was really hard work, but there was no other way to build an individual-looking base! I used white glue to fix the cork as well as for the balsa wood. No specific pattern was followed for the pavement, just chaos as chaos captured the disturbing last months of the European war. Once the cork was firmly glued, I applied a a resin-based stucco paste between the paving stones **(photo 16)**.

With the basic groundwork in place, it was time to move to painting. First at all, I primed the base and different shades of grey, highlighting the different heights of the groundwork **(photo 17)**. Once dry, I applied some the basic colours to the groundwork: some Buff for the soil areas, red brown for the bricks and a different medium grey for the sidewalk pavement **(photo 18)**. With several hues of grey and blue, I painted some individual paving stones to achieve some contrast and again applied the stucco in order to get the right colour of earth between the cobbles **(photo 19)**.

Oilbrushes were again the protagonist for weathering the base in several stages, both before and after gluing the dozens of tiny tree leaves. Tree leaves were glued one by one in a really tedious fashion using 'Sand and Gravel Glue' from Ammo (A.Mig 2012) **(photo 20)**. Once I had glued all the leaves in place, I applied some oils here and there in order to achieve more contrast between the different areas of the base and to integrate the leaves with the overall appearance of the base. The figure - pathetically painted by my own clumsy hands - came from Stalingrad Miniatures. It's a great figure and deserves a much better fate … but sometimes, life is cruel.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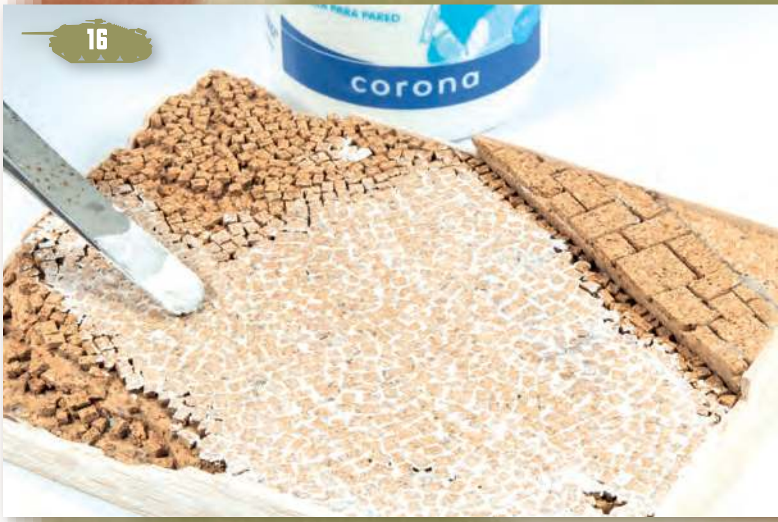
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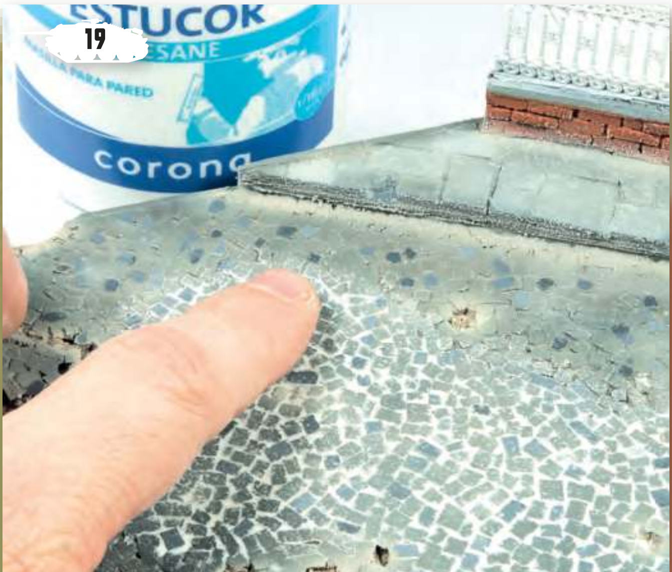
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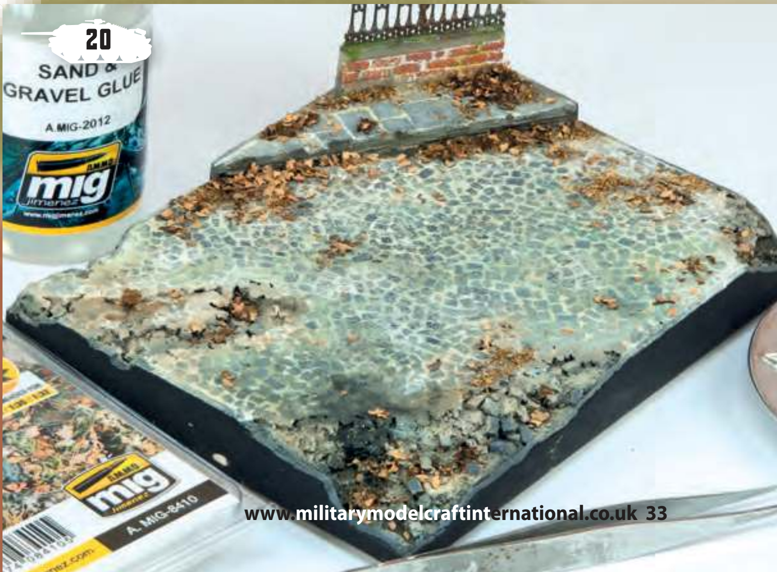

20

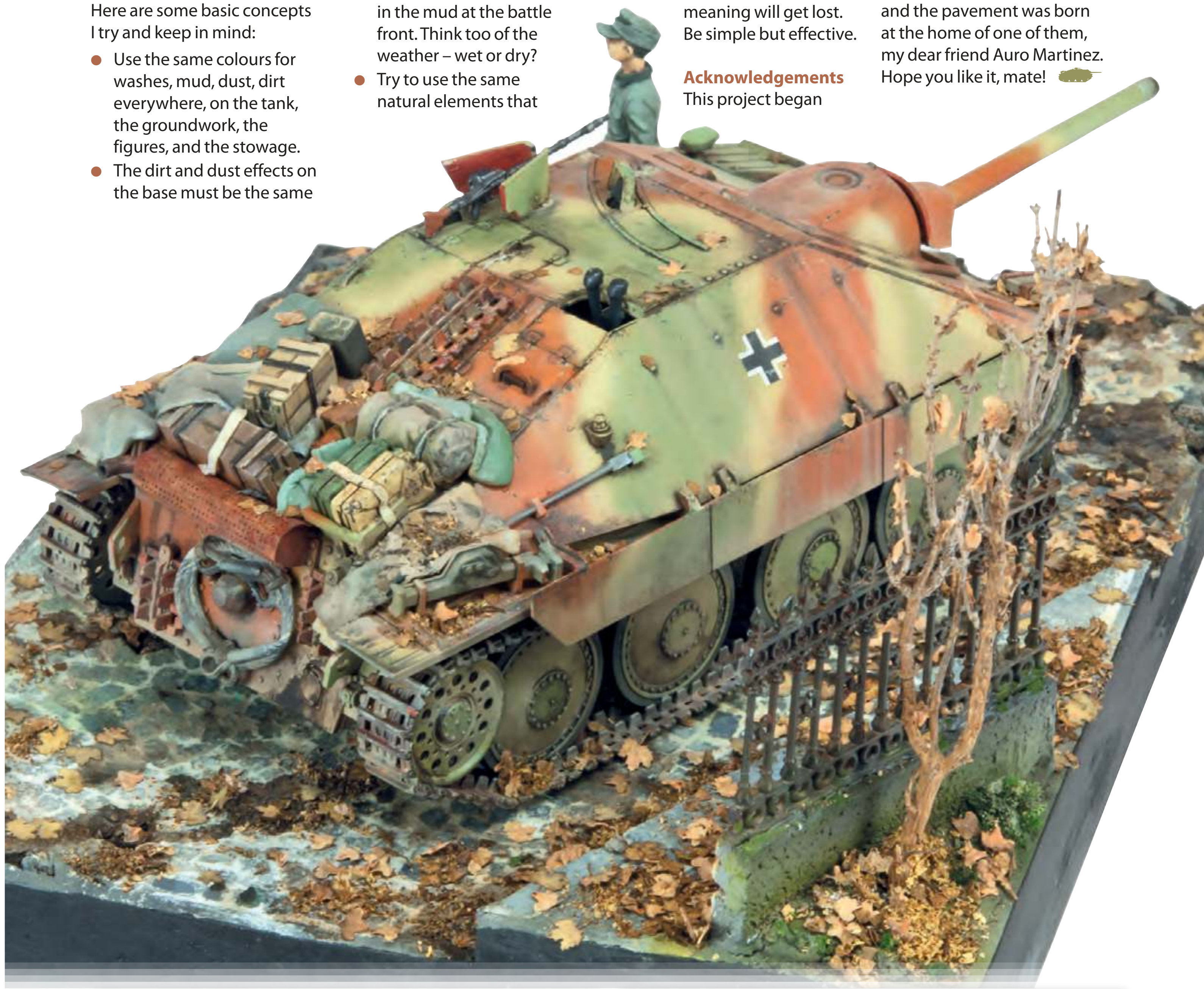
Making a small vignette or diorama requires special attention to some details that are often are forgotten by modellers. How the various colours, hues and shades of the different elements match together is really important. Here are some basic concepts I try and keep in mind:

- Use the same colours for washes, mud, dust, dirt everywhere, on the tank, the groundwork, the figures, and the stowage.
- The dirt and dust effects on the base must be the same as those used on the tank. Do not paint the base and tank as separate elements.
- Try to weather the vehicle in sympathy with its environment. A tank in a street will not have the same heavy weathering as a tank in the mud at the battle front. Think too of the weather – wet or dry?
- Try to use the same natural elements that you use in the base over the vehicle. For example, in this scene, leaves connect both elements.
- Any idea for a scene should be simple and its message plain to the spectator. If the message is too complex, its meaning will get lost. Be simple but effective.

Acknowledgements

This project began in Colombia, where I lived for more than two years and was finished in Madrid. It's a truly international work!.

This work is dedicated to my time in Colombia and all the new friends I made there. In fact, the crazy idea of the base and the pavement was born at the home of one of them, my dear friend Auro Martinez. Hope you like it, mate!



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Artur Wałachowski builds **ICM's** early SPW.

First of its Kind

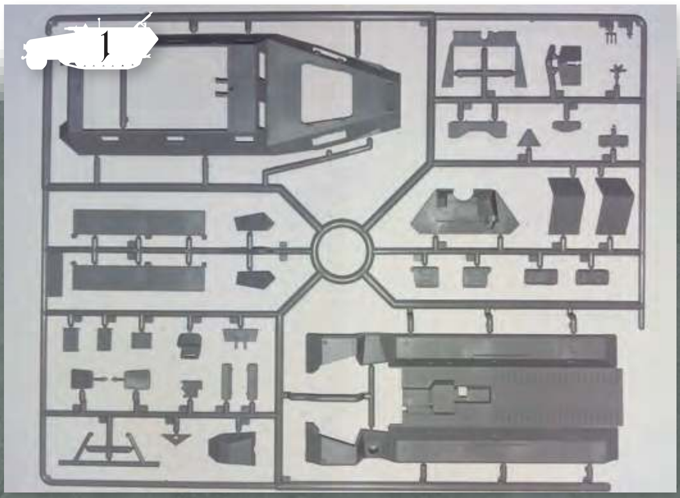
One of this year's most welcome armoured vehicles kit is **ICM's Sd.Kfz. 251 Ausf. A**. The Schützenpanzerwagen (SPW) was one of the most revolutionary vehicles of World War II, the world's first proper armoured personnel carrier. There have been numerous kits in all the major scales of the more numerous Ausf. C and Ausf. D models and in 2006 Zvezda released an Ausf. B, but ICM's kit is the only Ausf. A available in any scale. The kit consists of five sprues of light grey plastic plastic, a clear sprue and and vinyl front tryes and tracks. As well as a full interior, the kit also contains an engine which will be a good basis for anyone wanting to superdetail the kit In common with other ICM kits, there are no photoetched parts. Markings, or at least the number plates, are provided for four vehicles – all in Dark Grey from the French campaign of 1940 and the invasion of Russia the following year – while the instructions are clearly drawn.

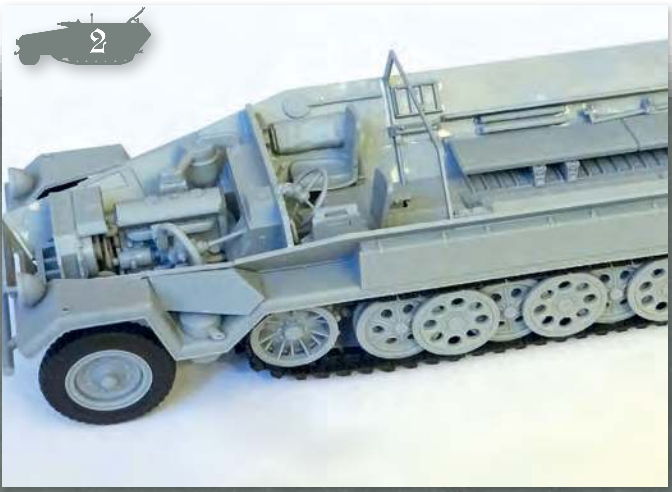
Assembly

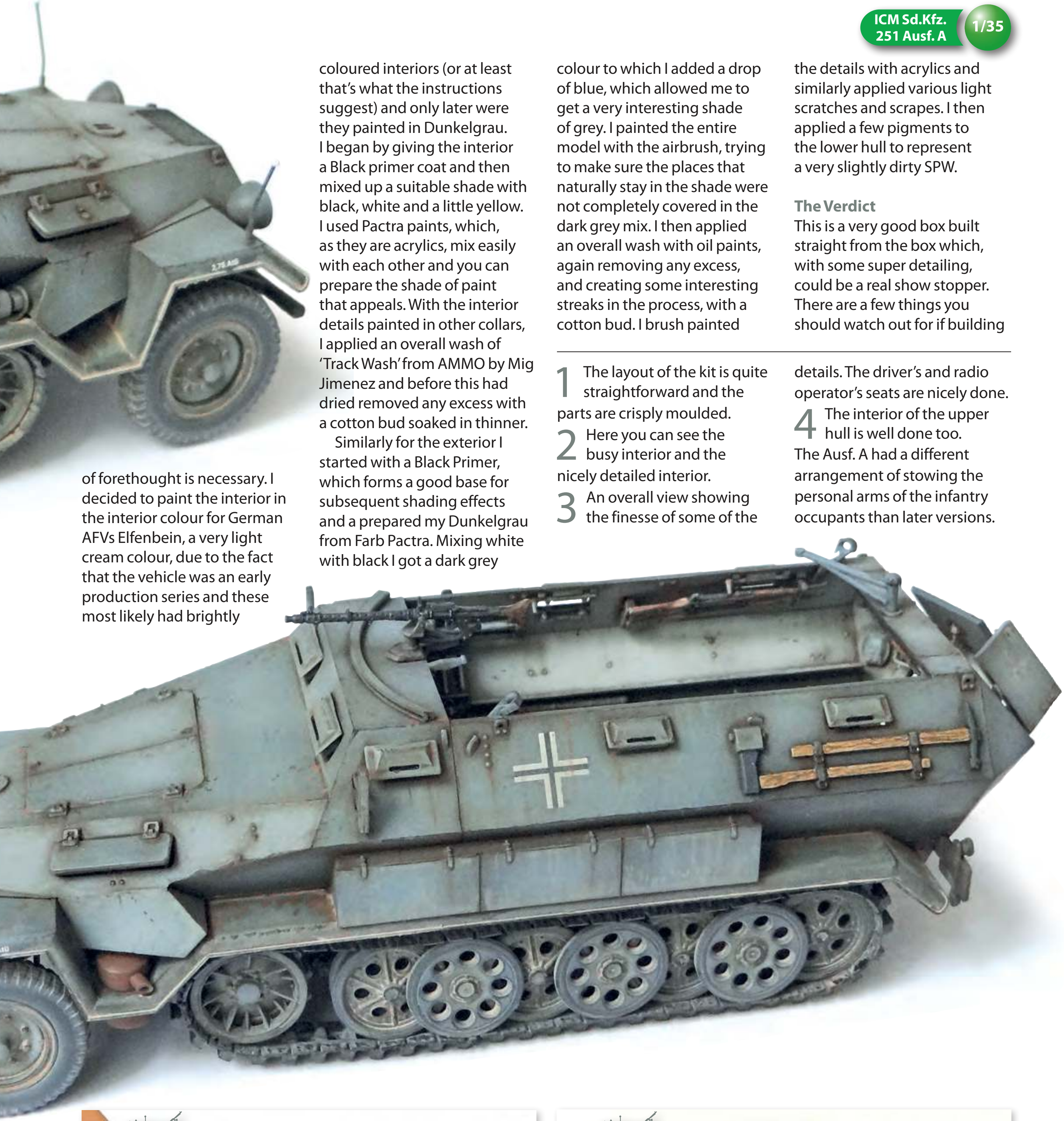
Building open vehicles is always a challenge, with care necessary to properly sequence the build and painting. ICM's excellent engineering however means that there are no dramas. The fit is very good, and only the slightest trace of filler was necessary when joining the upper hull to the lower.
ICM have done a very good replicating the busy appearance of the interior of the SPW. Particularly well done are the vision blocks and visors for the driver and radio operator; these can be posed either open or closed. There are plenty of Aftermarket detail sets available for the Sd.Kfz. 251, and while I'm sure more will be released for this in time, I was happy with the appearance of the interior out of the box. The only addition I made were a pair of turned-metal width indicators from RB Models, which were clearly superior to the kit's plastic parts.

Painting

As I said, with open-topped vehicles you have to paint as you go on and a degree







of forethought is necessary. I decided to paint the interior in the interior colour for German AFVs Elfenbein, a very light cream colour, due to the fact that the vehicle was an early production series and these most likely had brightly coloured interiors (or at least that's what the instructions suggest) and only later were they painted in Dunkelgrau. I began by giving the interior a Black primer coat and then mixed up a suitable shade with black, white and a little yellow. I used Pactra paints, which, as they are acrylics, mix easily with each other and you can prepare the shade of paint that appeals. With the interior details painted in other collars, I applied an overall wash of 'Track Wash' from AMMO by Mig Jimenez and before this had dried removed any excess with a cotton bud soaked in thinner.

Similarly for the exterior I started with a Black Primer, which forms a good base for subsequent shading effects and a prepared my Dunkelgrau from Farb Pactra. Mixing white with black I got a dark grey colour to which I added a drop of blue, which allowed me to get a very interesting shade of grey. I painted the entire model with the airbrush, trying to make sure the places that naturally stay in the shade were not completely covered in the dark grey mix. I then applied an overall wash with oil paints, again removing any excess, and creating some interesting streaks in the process, with a cotton bud. I brush painted the details with acrylics and similarly applied various light scratches and scrapes. I then applied a few pigments to the lower hull to represent a very slightly dirty SPW.

The Verdict

This is a very good box built straight from the box which, with some super detailing, could be a real show stopper. There are a few things you should watch out for if building

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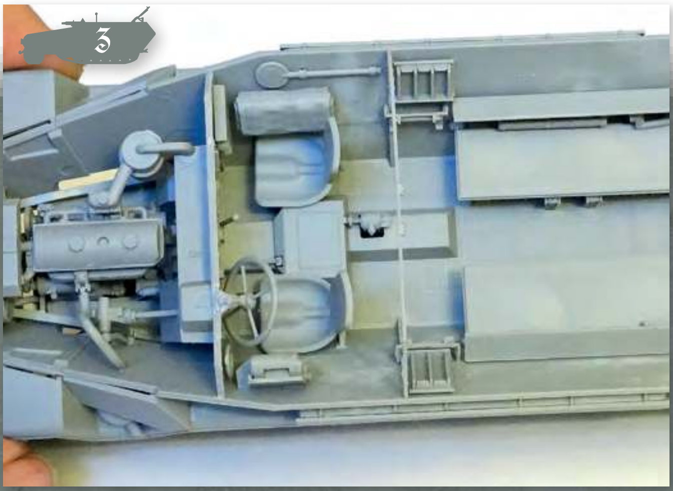
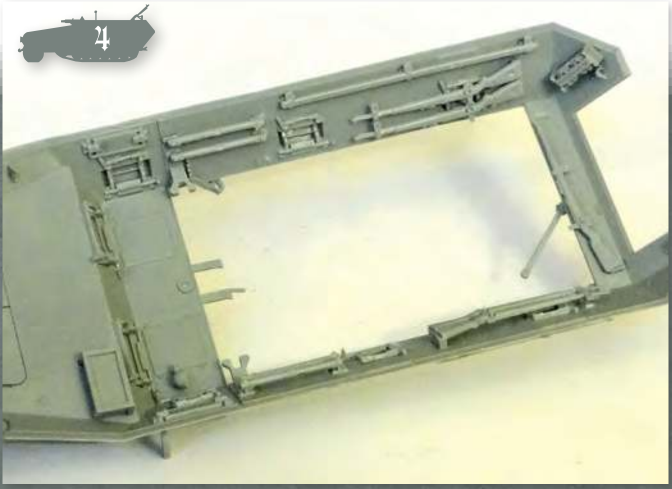
1 The layout of the kit is quite straightforward and the parts are crisply moulded.

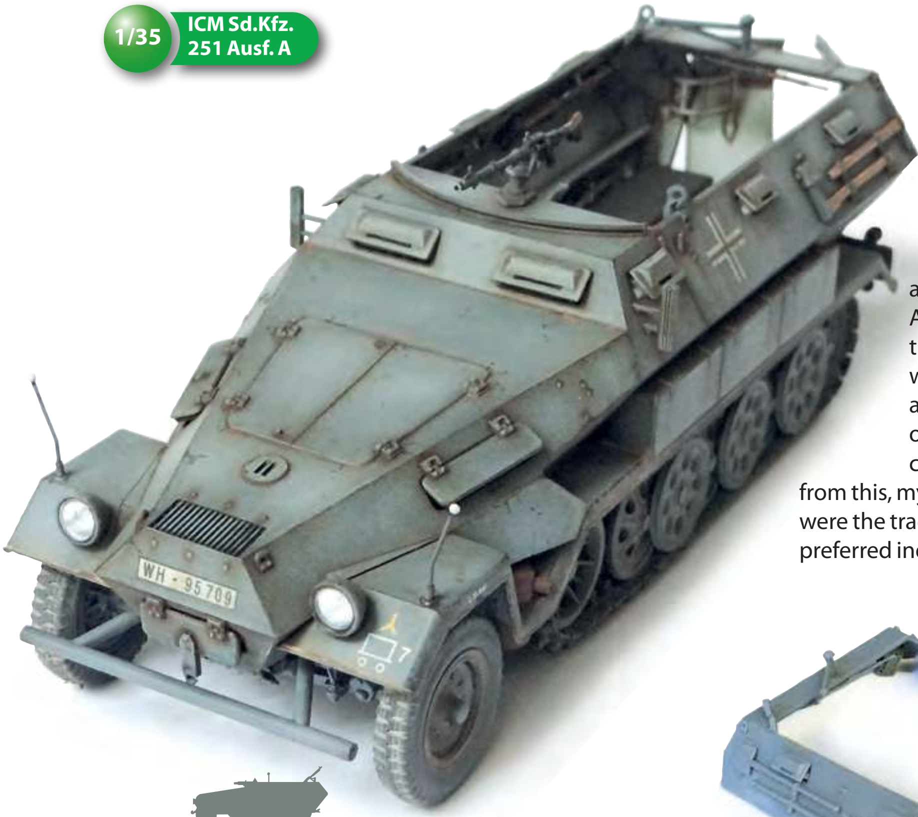
2 Here you can see the busy interior and the nicely detailed interior.

3 An overall view showing the finesse of some of the details. The driver's and radio operator's seats are nicely done.

4 The interior of the upper hull is well done too. The Ausf. A had a different arrangement of stowing the personal arms of the infantry occupants than later versions.





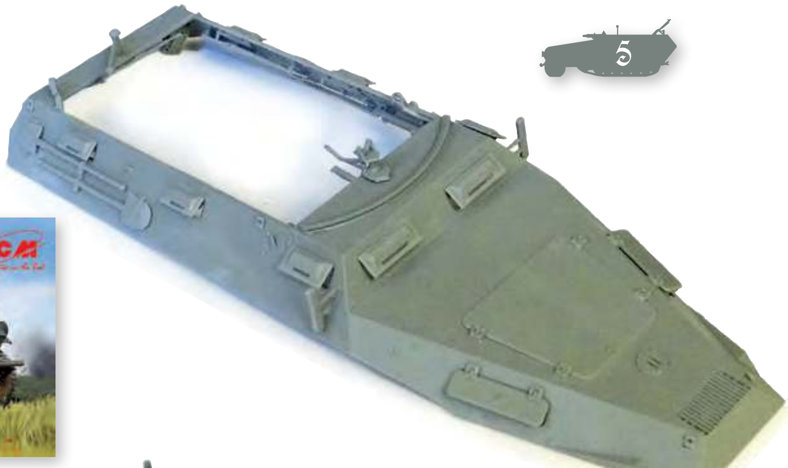


a very early Ausf. A: the radio antennae mount is correct on the box art, but the kit parts are more akin to those on the Ausf. B; similarly, the front MG shield was only introduced after production of the Ausf. A was complete. Apart from this, my only slight gripes were the tracks (I would have preferred individual links or link-and-length), and the lack of markings for the Polish campaign. Overall though, very highly recommended.

5 And the exterior: the stowage of pioneer tools on the hull side was also distinctive to the early SPWs.

6 The interior was painted in the very light Elfenbein shade and weathered with an oil paint wash.

7 With the interior painted it was time to close up the lower and upper hulls.



Availability:

ICM Sd.Kfz. 251/1 Ausf. A WWII German Armoured Personnel Carrier *(ref. 35101)* is available from all good model shops. See www.icm.com.ua for the full range of ICM kits.

MODEL KIT № 35101
Sd.Kfz.251/1 Ausf.A
WWII German Armoured Personnel Carrier
ICM
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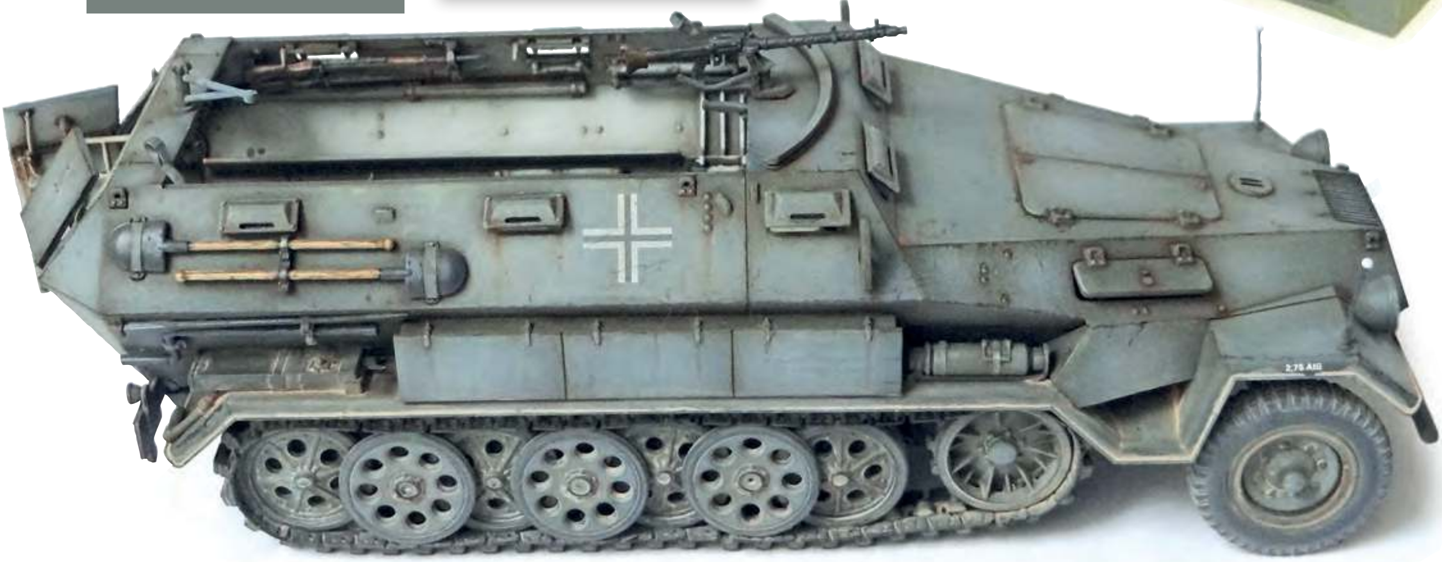
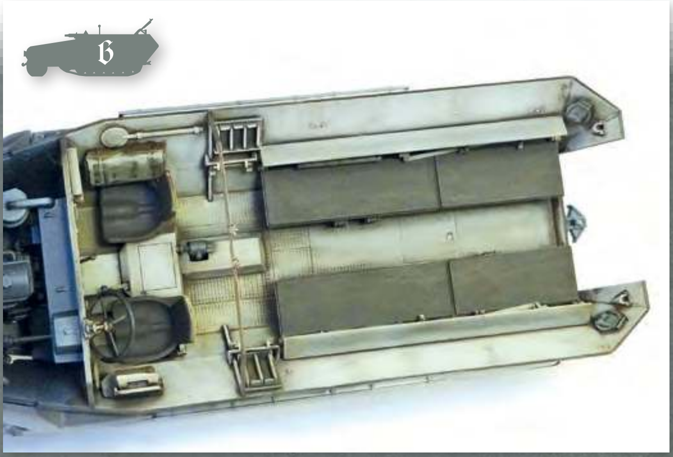
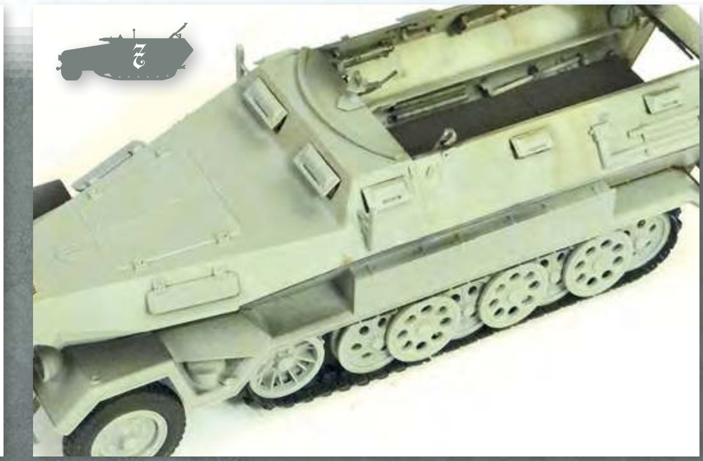
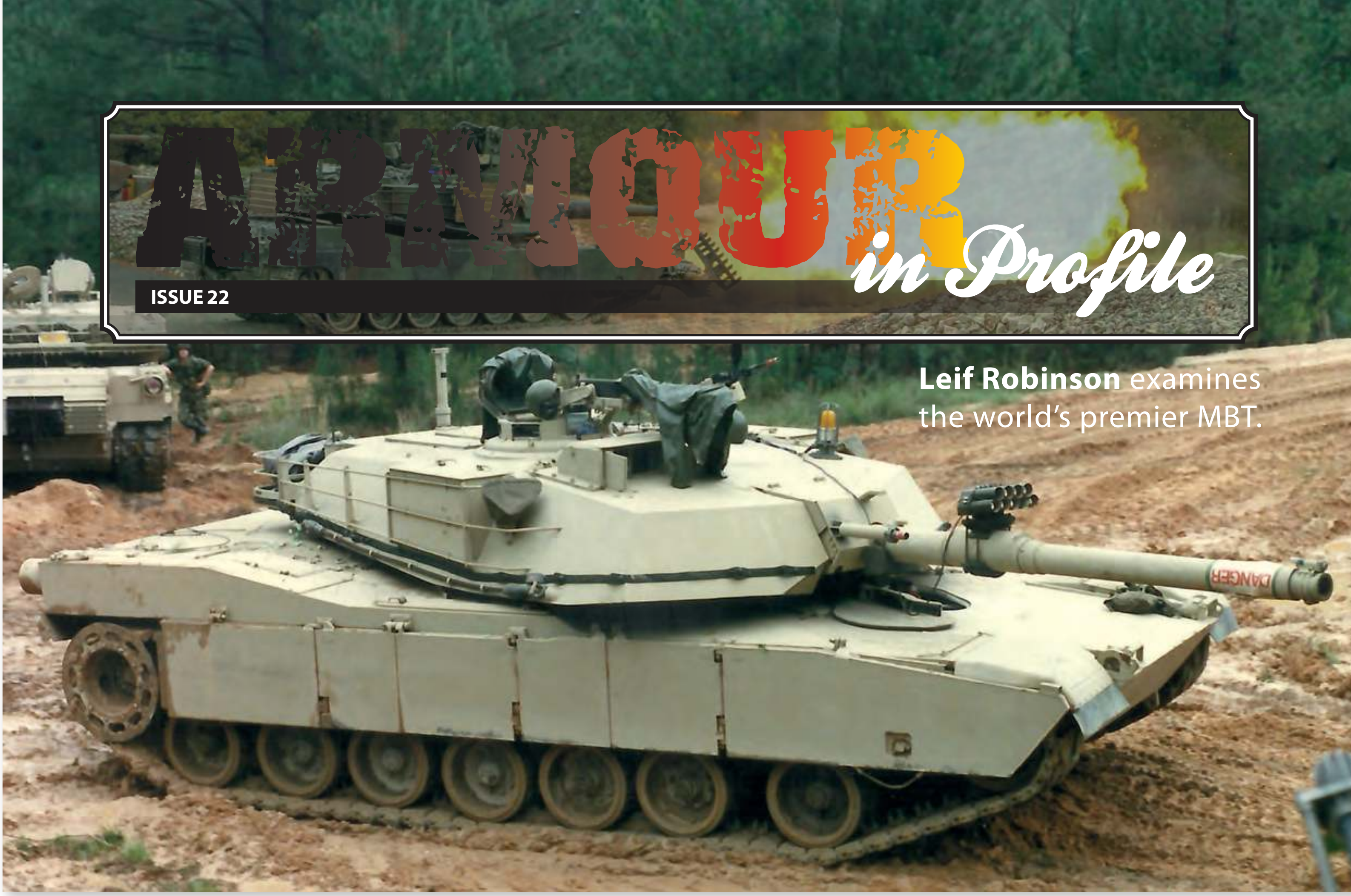






ARMOUR in Profile

ISSUE 22



Leif Robinson examines the world's premier MBT.

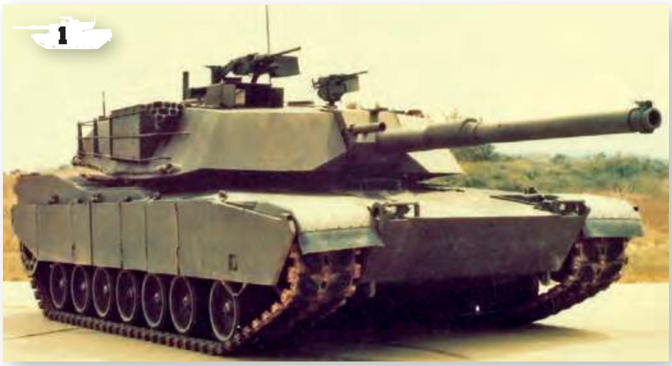
THE ABRAMS: FOUR DECADES OF EXCELLENCE

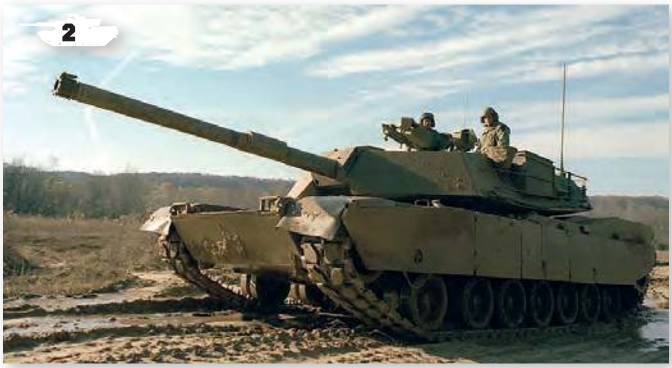
As the Abrams nears its fourth decade of service, its admirers can take stock its long reign as possibly the world's ultimate battle tank. The United States has built and rebuilt over 9,000 M1 Abrams series main battle tanks since 1979. From futuristic technological marvel when it was first introduced into service, to the latest M1A2 SEP battle tanks we know today, the Abrams has dominated NATO gunnery contests and the post-Cold War battlefield in a way that no other tank could. It has been modified and updated considerably and remains one of the most powerful weapons of its kind in service anywhere. The Abrams was born out of the failure of the MBT70 partnership with West Germany, designed from the outset as a weapon system that combined the best of American and foreign technology.

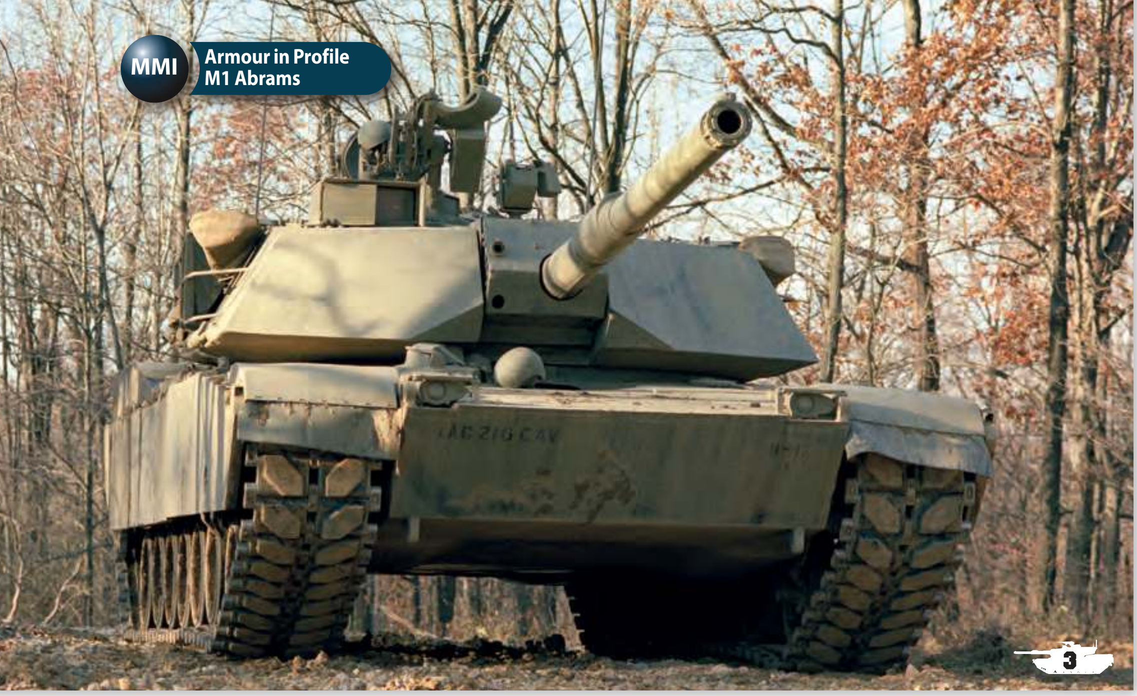
The original M1 Abrams was an advanced and highly mobile Main Battle Tank that incorporated the best features of American fire control and automotive technology. The original M68 gun fitted to the M1 was the same gun carried by the M60 series MBTs that had served the United States Army since 1960 (an American adaption of the British L7 series 105mm gun). In 1984 the M1IP (Improved Performance) was introduced with an up-armoured turret and turret bustle stowage rack (the main external distinguishing feature, although the rack was retrofitted to older M1s). The more powerful Rheinmetal-licensed 120mm M256A1 smoothbore gun was adopted to arm the M1A1, which appeared in service in 1986. Forty rounds of 120mm ammunition were carried, 34 of them in two vented turret bustle compartments that offered protection by isolating the ammunition in case of penetration. It was with the M1A1 that the US Armored Force inflicted devastating casualties against Iraqi T72s and other Soviet designed MBTs in 1991. A special version of the M1A1 with depleted uranium layers in its Chobham armour was also produced, designated

1 The prototype XM-1 Abrams underwent extensive field testing before entering service in 1981.

2 The original M1 Abrams Main Battle tank, armed with the M68 series105mm gun. The M1 was the first production tank fitted with Chobham armour and the first western production tank powered solely by a gas turbine engine. Its main armament ammunition stowage was in three sealed and vented compartments, two of which occupied most of the turret bustle. ***(General Dynamics/US Army)***





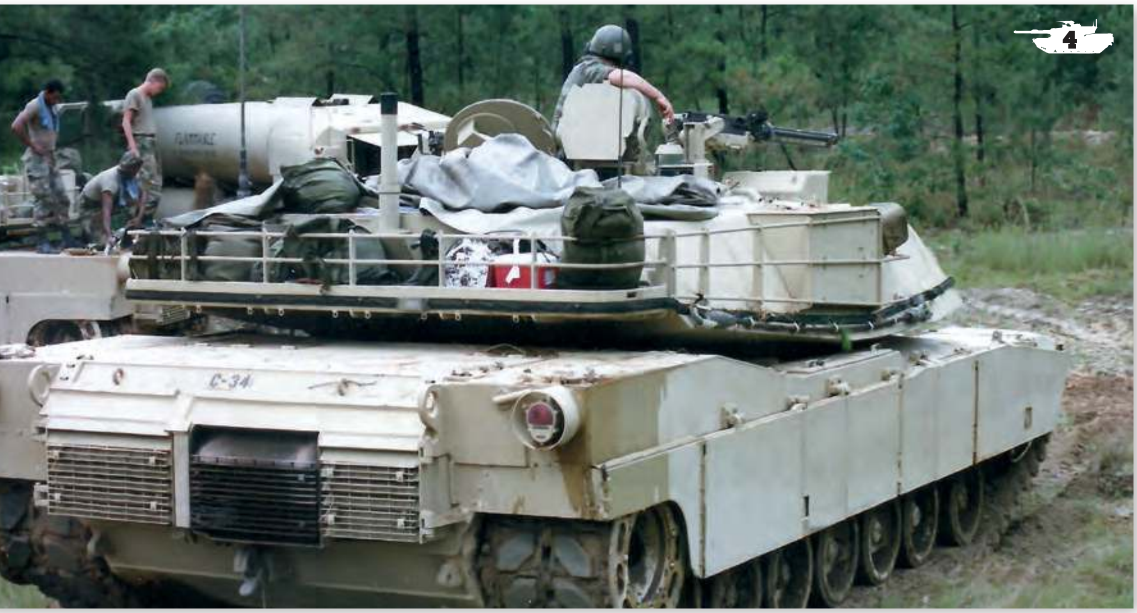


3 Another view of the original M1 Abrams Main Battle tank. ***(General Dynamics/US Army)***

4 A rear view of an M1IP at Fort Riley. The armoured exhaust grilles gave the powerpack a measure of protection from smaller calibre weapons. The M1's gas turbine's exhausts were hot enough to cause injury at close range and could damage equipment left in proximity for any length of time. ***(Michael DeBock)***

5 A 105mm night shoot by M1s at Fort Riley in 1986. By this time the M1A1 was already in the works. The M256 120mm L44 smoothbore gun gave the Abrams hitting power to match its excellent armour. Its barrel was fitted with a muzzle reference system, a fume extractor and a two-part aluminium thermal sleeve to minimise barrel bend.***(Michael DeBock)***

6 One of the victors of the famous Canadian Army Trophy competition in 1987. The M1 was by then a mature design and its amazing performance in the NATO gunnery competition confirmed its reputation. ***(Ron Mihalko)***



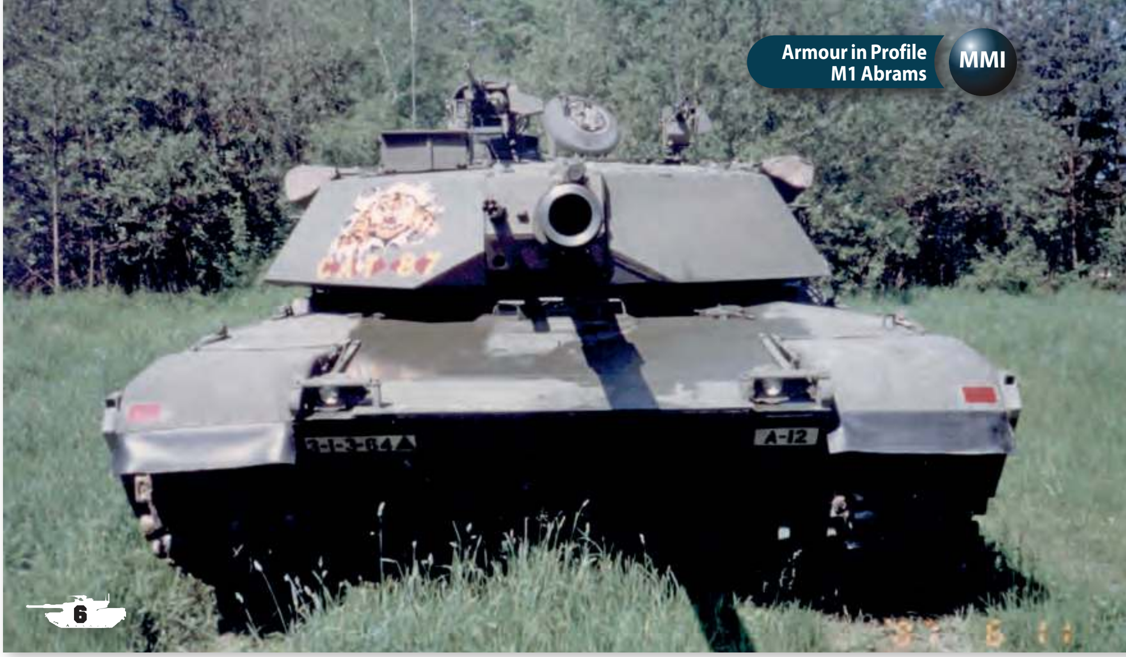
M1A1HA (for **H**eavy **A**rmor). The M1A1 gained a fearsome reputation that reflected its excellent combat performance in Operation Desert Storm.

The improved M1A2 ordered in 1990 included advanced electronics that improved situational awareness, battlefield navigation and communications for the crew and within each Abrams unit. The commander received an independent thermal viewing system ahead of the loader's hatch and a new cupola weapons station. The commander's thermal viewer improved the commander's target acquisition and battlefield observation capability regardless of weather. The gunner's primary sight unit received two-axis stabilization. The new communications system was routed through the M1A2's radio system and essentially functions as a live GPS map network that plots the tank's position and those of its platoon mates. The system also doubles as a real time live command and control system. With this battlefield management system the M1A2 had a clear advantage over most of its contemporaries. The M1A2's basic armour was also improved with depleted uranium layers to match the earlier M1A1HA's level of protection. The longer 120mm L55 smoothbore gun was another option that could have been adopted at the time, but the US Army and USMC have kept the M256A1 L44 gun up to the present time. American ammunition development programmes have not been neglected since the Cold War, allowing the M256A1 to keep abreast of developments in reactive armour and particularly to improve the weapon's performance against 'softer' targets. The System Enhancement Package (SEP) introduced for the M1A2 in 1995 was the next stage in the Abrams' evolution. By the early 1990s the Abrams had been adopted by the Marine Corps as well as the Army and maintaining multiple versions of the same vehicle was deemed wasteful. The SEP programme was envisaged to bring all of the M1A1s and M1A2s in the US inventory up to

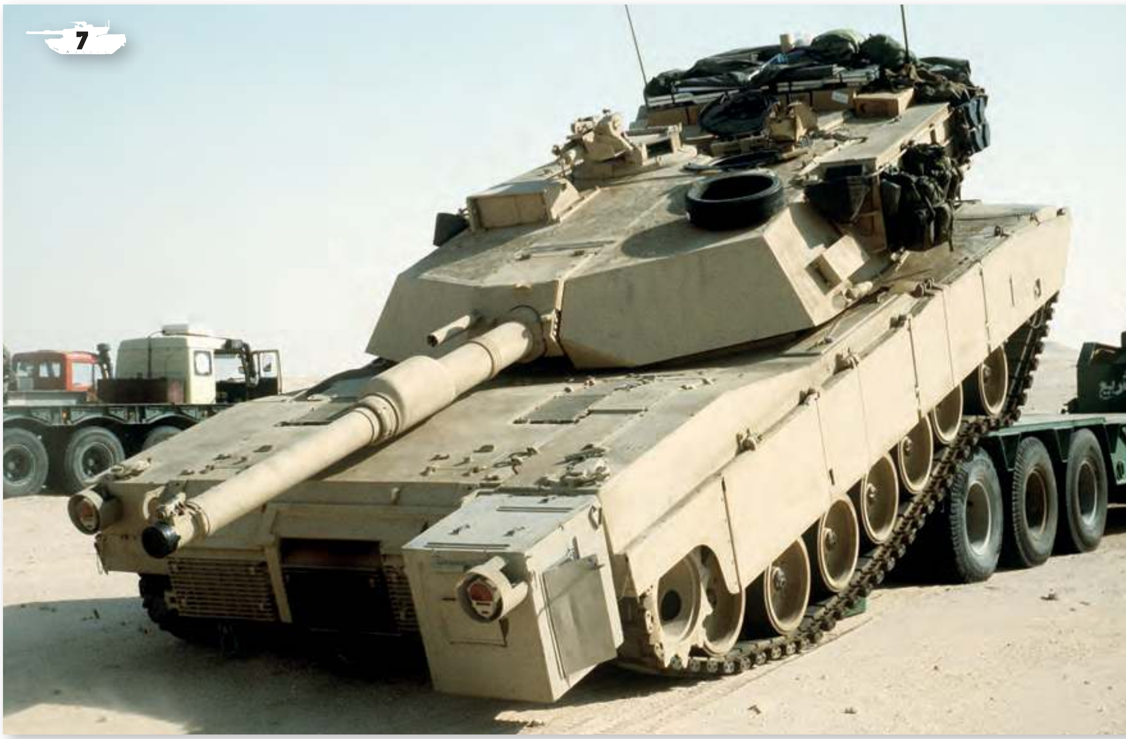
7 An M1A1 Abrams main battle tank arrives on a Saudi transport truck during Operation Desert Shield. The M1A1 carries 40 rounds of 120mm ammunition: 6 in the hull, and two racks of 17 each in the turret. The M1A1 had replaced the M1 tank in most US tank units by the early 1990s. ***(US Army, Sgt. B. Cumper)***

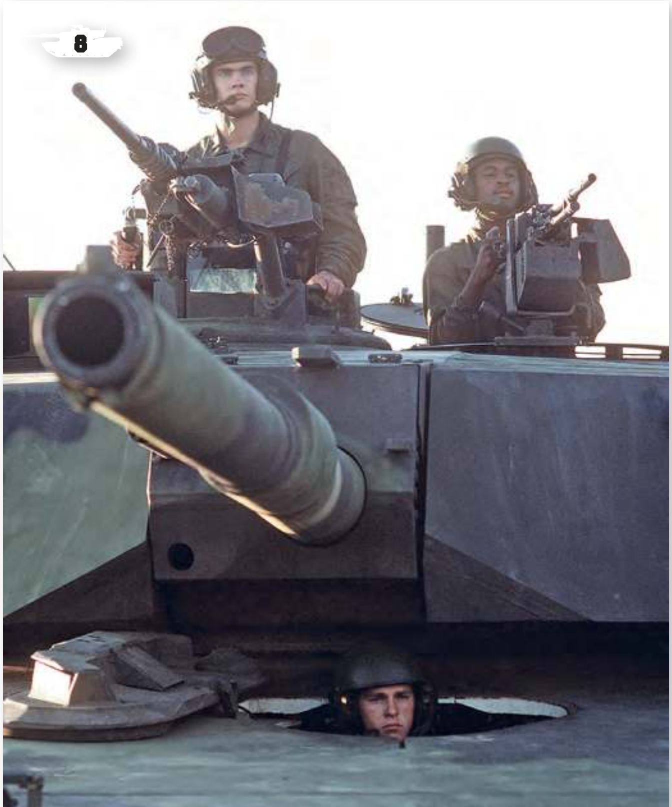
8 The secondary armament of the M1 has remained unchanged throughout its service: the commander's M2HB .50cal MG and a coaxial and a pintle-mounted M240 7.62mm MG.

9 An M1A1 Abrams main battle tank lays a smoke screen during maneuvers just prior to the beginning of Operation Desert Storm. ***(US Army)***



the same M1A2 SEP standard, a massive undertaking that was not fully attainable due to cost. The Army decided instead to upgrade their 600 M1A2s and about 550 M1A1s to M1A2 SEP standard and to overhaul and improve a portion of the remaining M1A1 inventory with less drastic improvements focused at vehicle electronics. The M1A2 SEP version 2 introduced several other new features found necessary in combat in Iraq, including improved side armour, a remote weapons station, improved computer displays and communications equipment, and an improved transmission to deal with the Abrams' increased weight. Some 7,000 older M1A1s are in course of being upgraded more modestly into M1A1D configuration (D is for **d**igital) with modernized turret systems



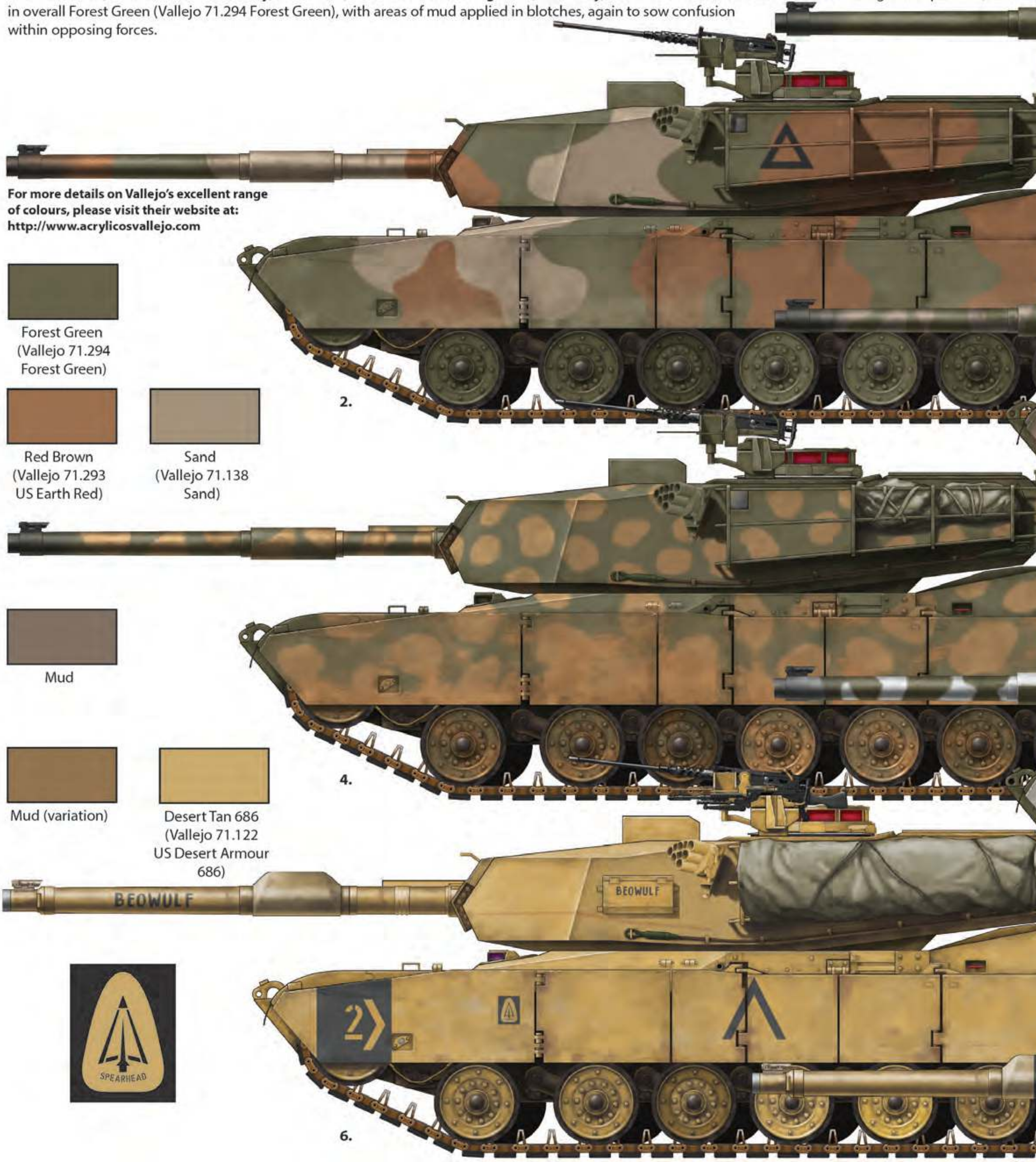


1. M1 Abrams, 3rd Battalion, 67th Armoured Regiment, 2nd Armoured Division, based at Fort Hood, Texas, circa 1983. Overall Forest Green (Vallejo 71.294 Forest Green). All markings are in Black (Vallejo 71.057 Black).

2. M1 Abrams, 2nd Battalion, 67th Armoured Regiment, 2nd Armoured Division, based at Fort Hood, Texas, summer 1983. Overall Forest Green (Vallejo 71.294 Forest Green), with disruptive areas of Red Brown (Vallejo 71.293 US Earth Red) and Sand (Vallejo 71.138 Sand).

3. M1 Abrams, 11th Armoured Cavalry, *Blue Force*, NATO Exercise *Reforger '83*, Germany, autumn 1983. Overall Forest Green (Vallejo 71.294 Forest Green), with areas of over-applied mud to confuse opposing forces.

4. M1 Abrams, 11th Armoured Cavalry, *Blue Force*, NATO Exercise *Reforger '83*, Germany, autumn 1983. A variation on the scheme given in profile 3, finish is in overall Forest Green (Vallejo 71.294 Forest Green), with areas of mud applied in blotches, again to sow confusion within opposing forces.


Forest Green (Vallejo 71.294 Forest Green)
Red Brown (Vallejo 71.293 US Earth Red)
Sand (Vallejo 71.138 Sand)
2.
Mud
Mud (variation)
Desert Tan 686 (Vallejo 71.122 US Desert Armour 686)
4.
BEOWULF
BEOWULF
2
SPEARHEAD
6.

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5. M1 Abrams, attached to Delta Company, 1st Batallion, 64th Armoured Regiment, 3rd Infantry Division, Germany, circa 1983-84. Overall Forest Green (Vallejo 71.294 Forest Green), with areas of winter white distemper applied to the hull and turret. Note that the tank has only been partially covered. This profile is based on available photographic reference.

6. M1A1 Abrams, *Beowulf*, 2nd Brigade, 3rd Armoured Division, Kuwait, early 1991. Overall Desert Tan 686 (Vallejo 71.122 US Desert Armour 686). All markings are in Black.

7. M1A1 Abrams, VII Corps, Operation Desert Storm, 1990. Overall Desert Tan 686 (Vallejo 71.122 US Desert Armour 686). All markings are in Black.

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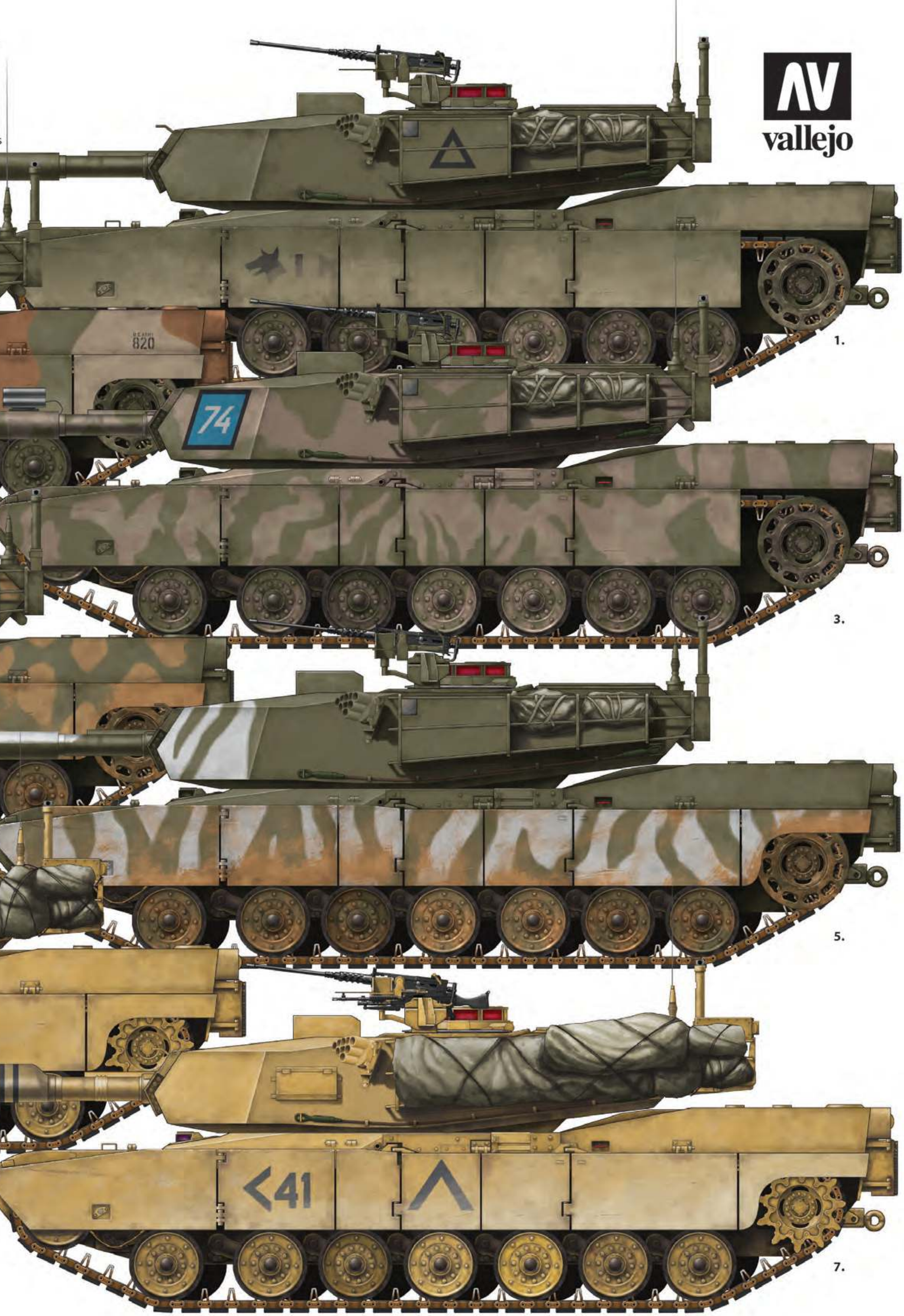
DRAWINGS & CAPTIONS BY Mark Rolfe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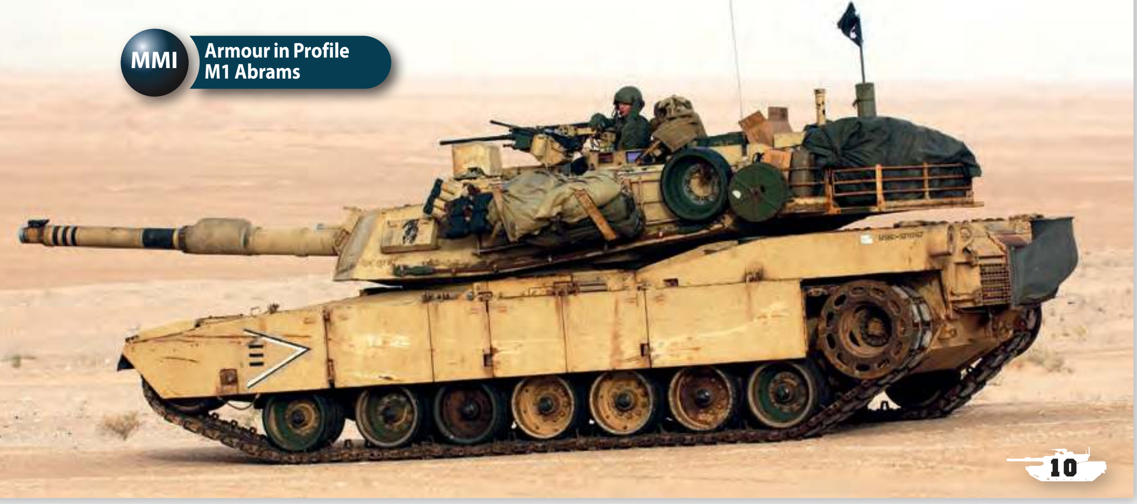


10 An M1A1s from the 13th Marine Expeditionary Unit Tank Platoon photographed during training at 29 Palms, California in 2003. ***(U.S. Navy, PH1 T. Banks)***

11 An M1A1 seen during a joint USMC and Emirati Marines live fire exercise at Al Hamra, United Arab Emirates in December 2009.***(USMC, Cpl. J. Belovarac)***

12 An M1A1 of the 1st Armored Division seen north of Frankfurt during exercise Ready Crucible in February 2005. ***(US Army, R.Bumgardner)***

13 Iraqi soldiers from the 9th Iraqi Army Division instructed by American tankers from the 3rd Battalion, 69th Armored Regiment of the 1st Brigade, 3rd Infantry Division in Al Rashid, Iraq, in July 2010.***(US Army PFC G. Silverman)***

14 Boresighting USMC M1A1s stationed in Helmand Province, Afghanistan in 2011. ***(USMC. N. Johnson)***

15 A USMC M1A1 Abrams Tank, manned by a Royal Australian Armoured Corps crew, and scouts from the 1st Tank Battalion, USMC patrol through the streets of Range 200, at Twentynine Palms in the summer of 2013. ***(USMC Cpl. W. Johnson)***

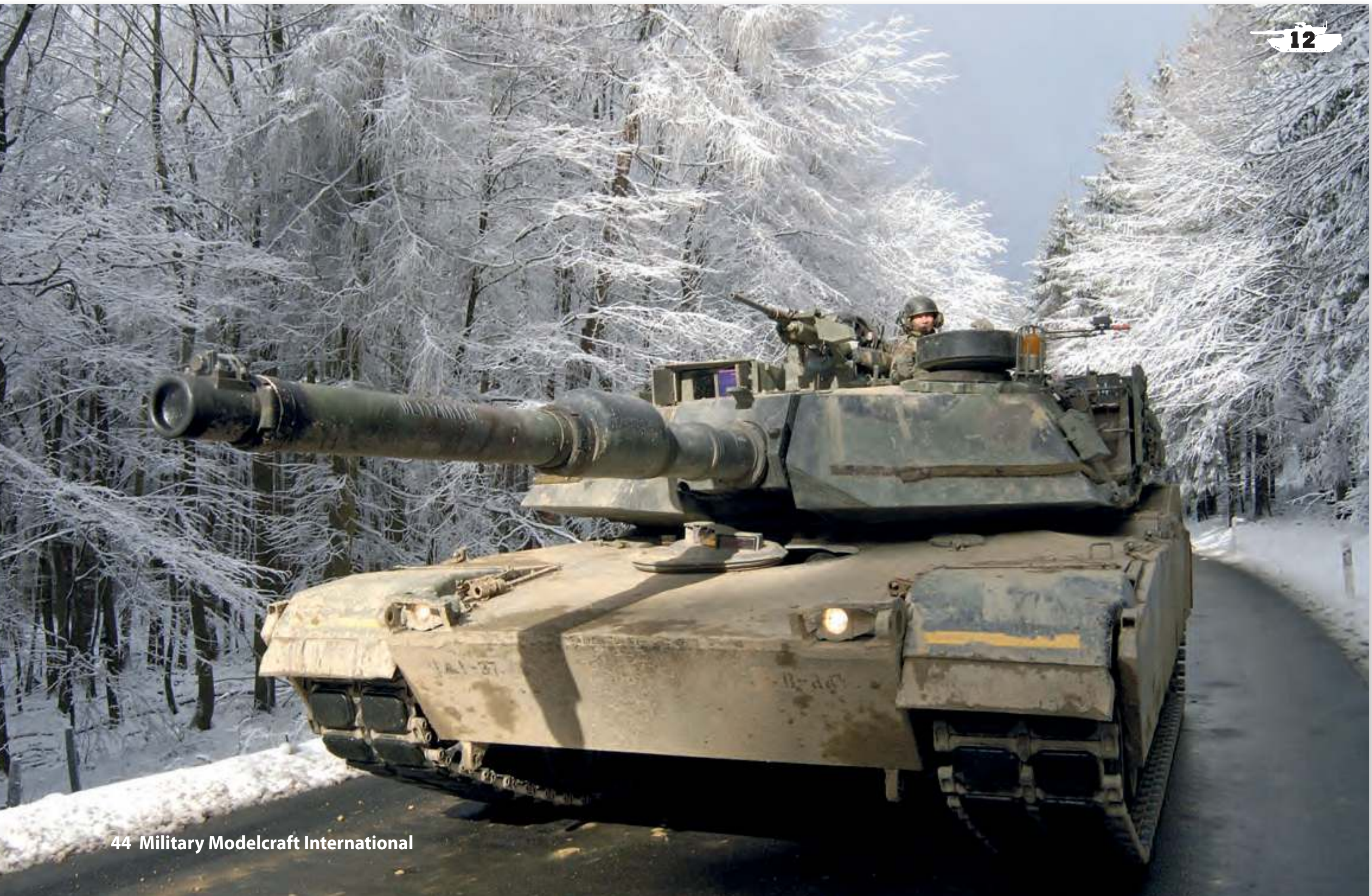
16 The TUSK kit was adopted to give the M1A1 and M1A2 improved survivability when fighting in an urban environment. This vehicle was photographed in Iraq in 2008. ***(US Navy)***

17 Operation Ready Crucible in 2005 was one of the largest US exercises in Germany since the end of the Cold War. The M1A1 seen here is driving through a small town north of Frankfurt. ***(US Army, R.Bumgardner)***

and communications.

Separate modular equipment developed for the challenges of fighting in urban areas in Iraq was developed for the Abrams. The General Dynamics TUSK (**T**ank **U**rban **S**urvival **K**it) armour upgrade introduced in 2006 was purchased for over 500 M1A2s. The TUSK system can be used in conjunction with a remote weapons station and it can be configured to protect the Abrams crew against different threat levels. In its most basic form it improves survivability on the tanks flanks and rear from antitank missiles and short-range RPG attack. It can also include signal jammers to disrupt IED detonation signals in the tank's proximity. Slat armour fences protect the rear of the hull and turret, reactive armour arrays are fitted to protect the hull sides and an armoured machinegun shield is provided for the loader's position. Another element that was already employed on USMC M1A1s adopted by the Army with the TUSK kit was the infantry phone box, enabling direct communication with the tank crew by infantry sheltering behind the vehicle.

The Main Battle Tank was neglected in the NATO armies since the end of the Cold War while light armoured forces



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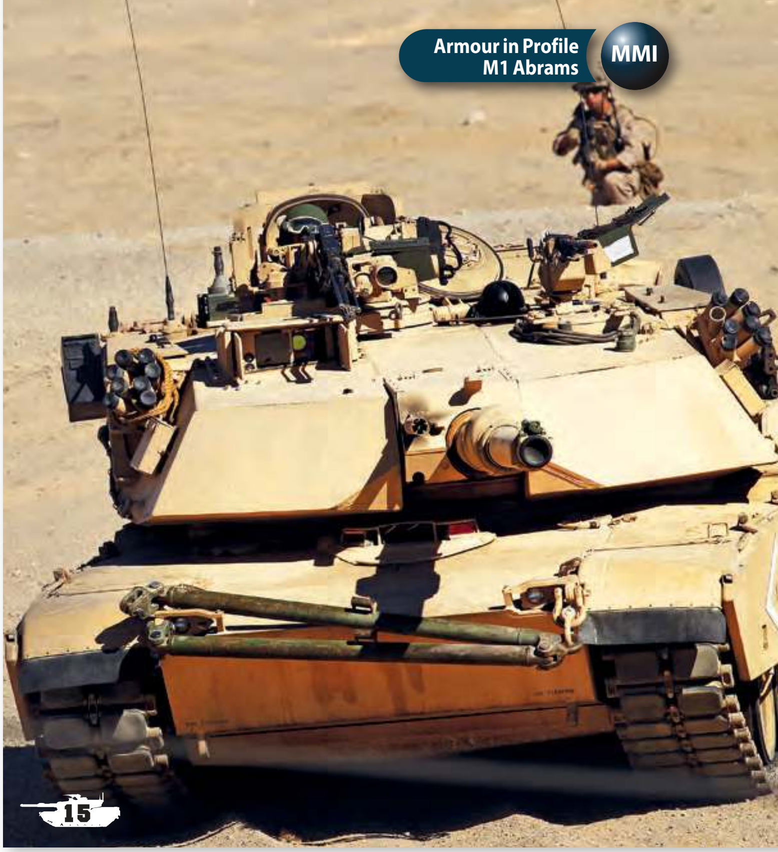
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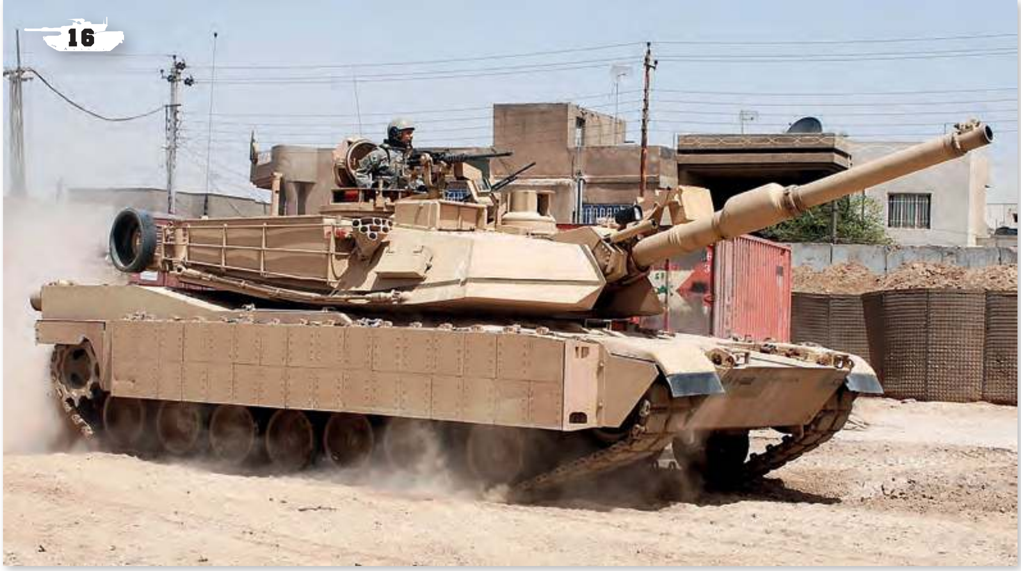
handled most armoured missions in Afghanistan and Iraq. The United States developed a 140mm Abrams Block 3 demonstrator in the mid-1990s to study up-gunning the Abrams, but instead resolved to continue development of the 120mm smoothbore. Part of the reason for leaving the M1A1 and M1A2 MBT's firepower relatively unchanged since the mid-2000s was the fact that it already outclassed any potential enemy vehicles by a wide margin. The T72 series has proven easy prey for the M256A1 120mm gun at all combat ranges, and even the most modern T72 derivatives lacked the firepower to penetrate the Abrams frontally. The Abrams' rapid target acquisition and hunter/killer fire controls have enabled single M1A1s to knock out multiple adversaries in quick succession in 1991 and again in 2003. The only other MBTs with similar firepower and armour protection were operated by America's allies. The United States also benefitted from having a large number of Abrams in the national inventory, unlike America's NATO allies. The Abrams thus enjoys a rare combination of quality and quantity unmatched elsewhere in the world.

In recent years the appearance of the new Russian T14 Armata has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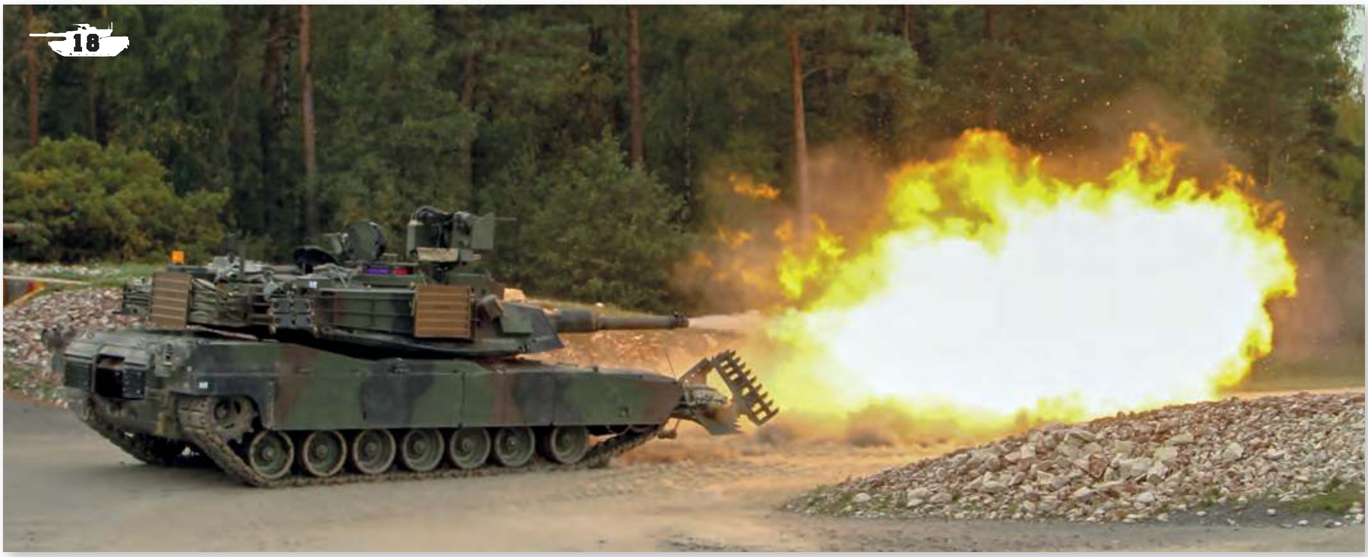
caused some alarm in NATO circles, but it remains an unknown quantity. While the T14's innovative layout and advanced technology have seemingly levelled the playing field in some respects, the new Russian tank remains untested in combat, and it may yet need time to develop into an operational weapon system. Other challenges from the RPG29 and the *Kornet* ATGM to the supremacy of NATO's MBTs, including the Abrams - remind us that the gun-armour race is not the only factor to be considered. The next step forward for the Abrams programme will be interesting to see although details are naturally scarce. In the meantime, the inevitable comparisons and speculation on the relative merits of the M1A1 and M1A2 versus those of the T14 are only to be expected. The United States will no doubt continue its successful development of the M1 series to meet- and overcome, these challenges.

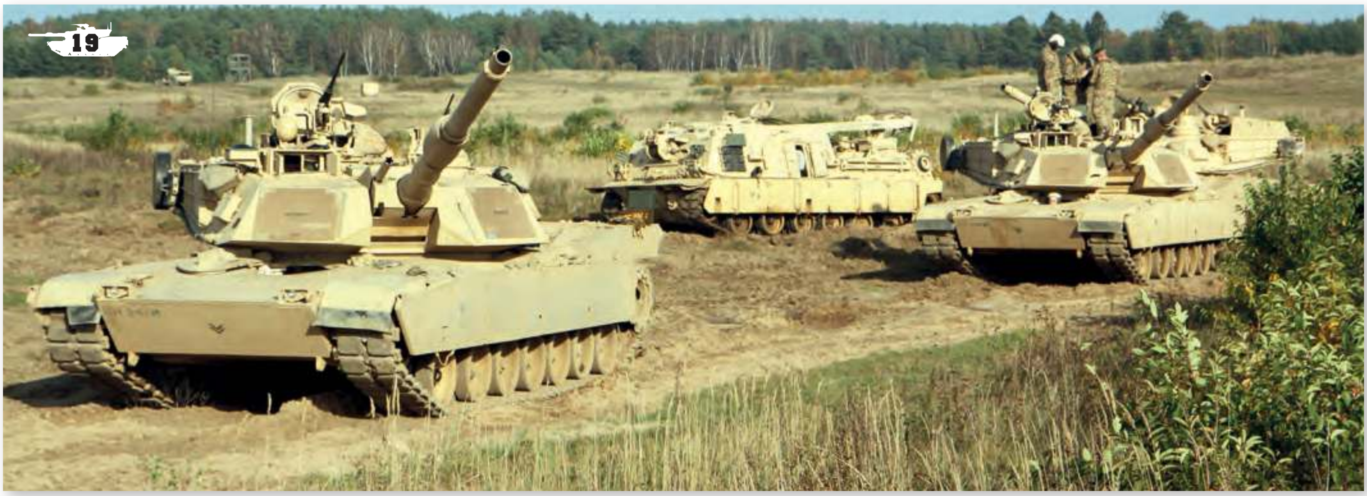
18 An M1A2 SEP2 of the 2nd Battalion, 12th Cavalry Regiment, 1st Brigade Combat Team, 1st Cavalry Division during a calibration shoot on the Grafenwöhr Training Area in late 2014. Note that this vehicle is fitted with a mine plow. ***(US Army Capt. J. Farmer)***

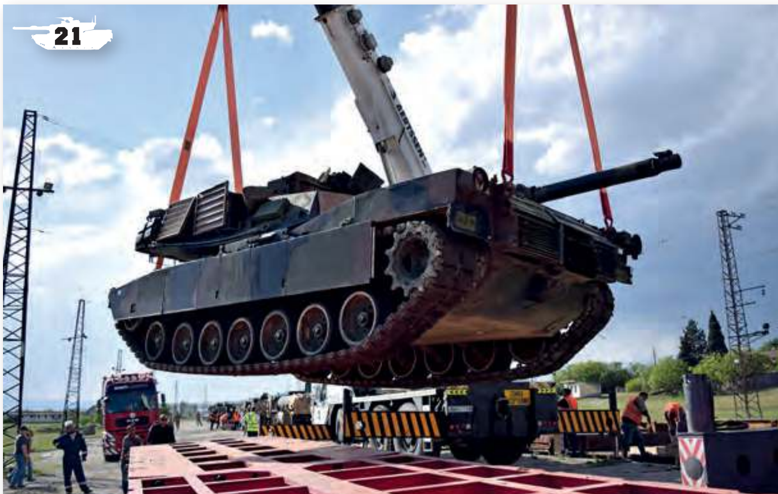
19 In response to a resurgent Russia, the US Army and USMC's Abrams have deployed numerous times in recent years to exercise with new NATO members. One of the most important of these is Poland, which has hosted large multinational maneuvers including American forces. These men and tanks are from the 2nd Battalion, 8th Calvary Regiment, 1st Brigade Combat Team, 1st Calvary Division, seen during Operation Atlantic Resolve in Poland in October 2014. ***(US Army B. Ames)***

20 The same exercise included the deployment of US armoured forces in Latvia, a projection of NATO power that would have been unthinkable twenty years ago. ***(US Army)***

21 With the strategic mobility represented by America's extensive logistics capabilities, weapons like the Abrams can and will be sent across the world to support American soldiers in their missions quickly and effectively for years to come. The M1 Abrams series have proven to be one of most successful tank designs ever built and they will remain potent weapons for many years to come. ***(US Army R. Tatum)***







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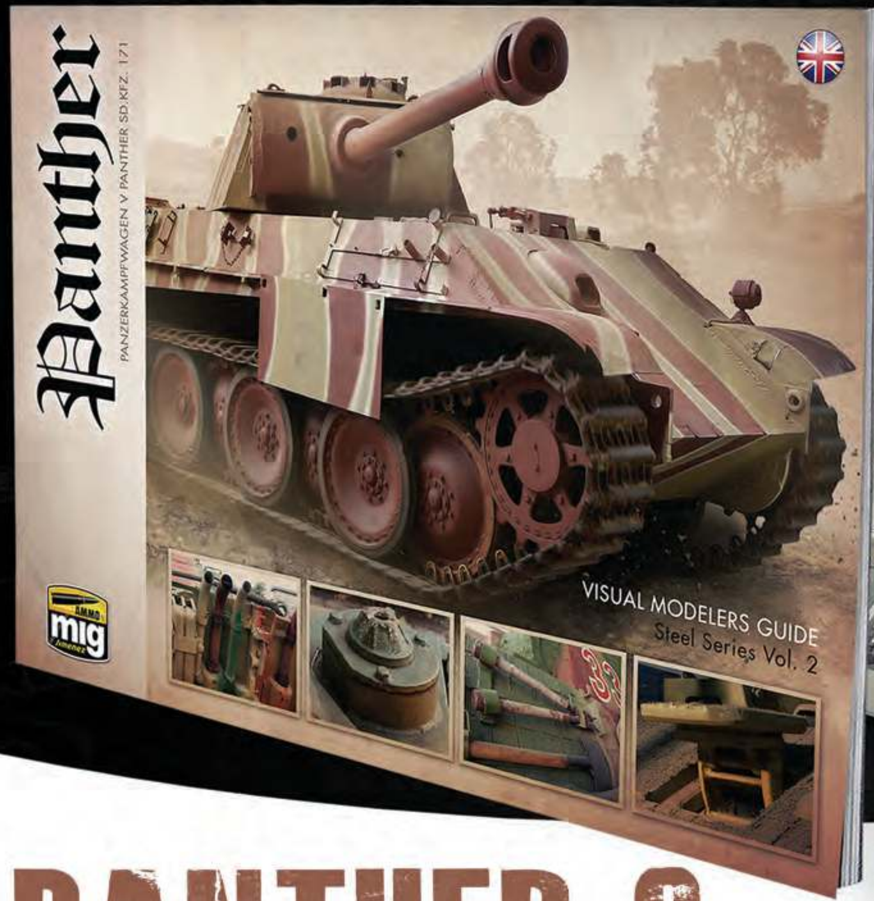
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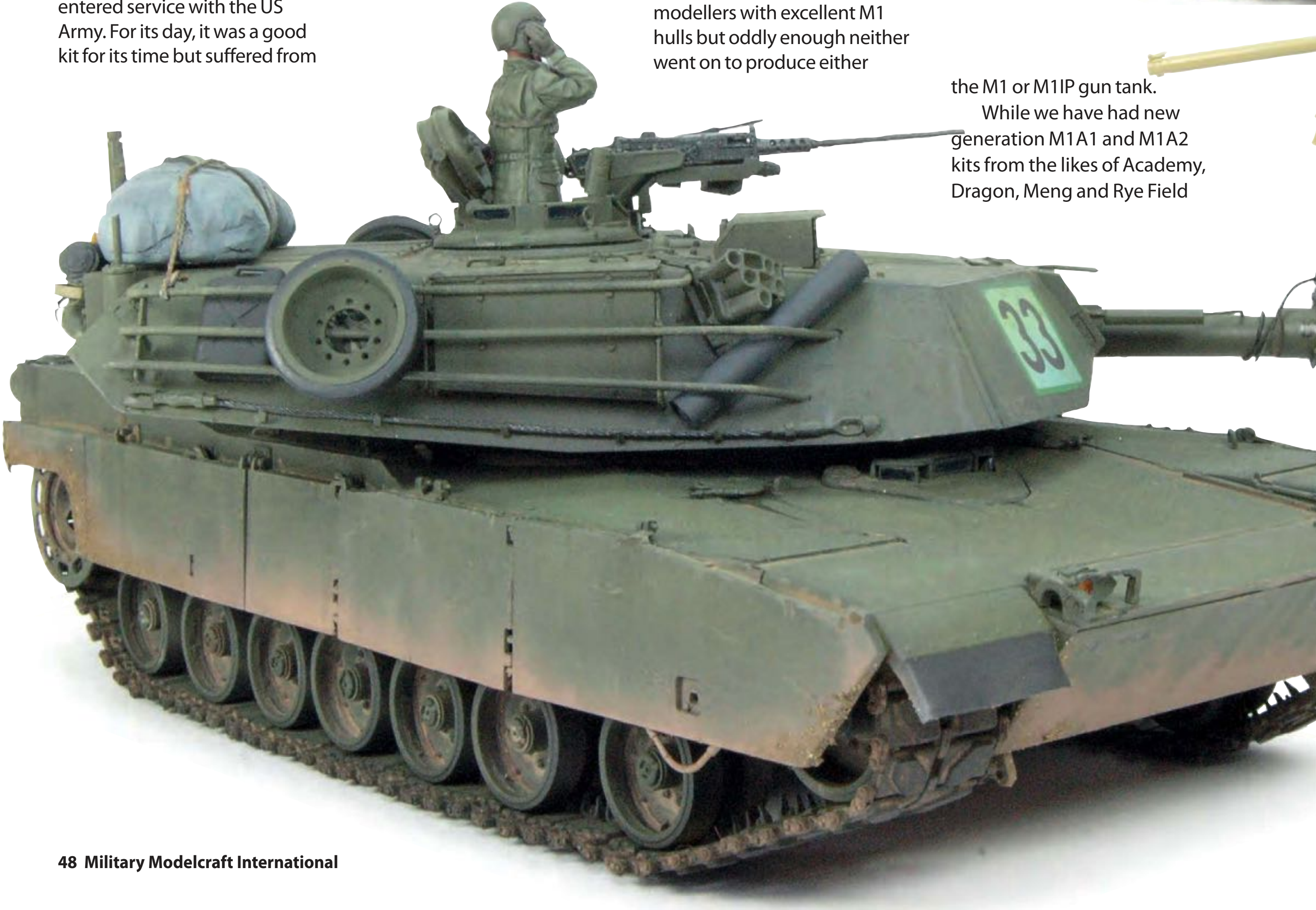
MEAN GREEN MACHINE

The Editor tackles **Panda Model's** new M1.

There is no doubt that the M1 Abrams is one of the most iconic and important tanks of the modern era and as such it has been extensively represented in miniature by all the major manufacturers in all the popular scales. Perhaps surprisingly the original M1 has been relatively passed over by the big names: Tamiya released their version back in 1982, just two years after the tank first entered service with the US Army. For its day, it was a good kit for its time but suffered from the usual inaccuracies and over-simplifications. In 1986 Academy released an M1, which was probably worse than the Tamiya kit, while Esci's 1988 kit was similarly inadequate. In 2004 and 2005 respectively Trumpeter and Dragon produced the Panther II Mine Clearing Vehicle, providing modellers with excellent M1 hulls but oddly enough neither went on to produce either the M1 or M1IP gun tank.

While we have had new generation M1A1 and M1A2 kits from the likes of Academy, Dragon, Meng and Rye Field



M1 Abrams MBT
1/35 scale
PH35030

Model, it has taken until now for a new version of the original 105mm-armed M1 MBT. **Panda Model's M1 Abrams MBT** is a welcome release and considerable improvement on the Tamiya kit, but, as we shall see, is not without its issues. The kit contains six sprues of dark yellow plastic, an upper and lower hull, clear sprue and a fret of photoetch. Looking at the twenty-step instruction manual I presumed this would be a straightforward enough build, but things turned out a little differently as you'll see.

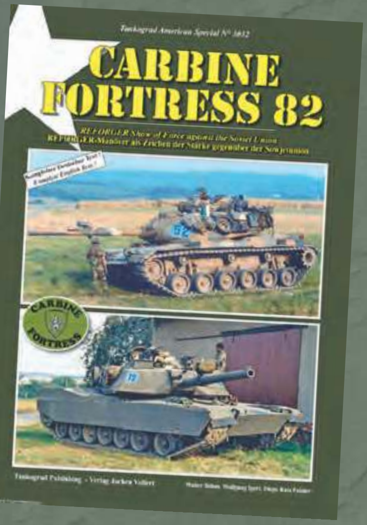
Availability:

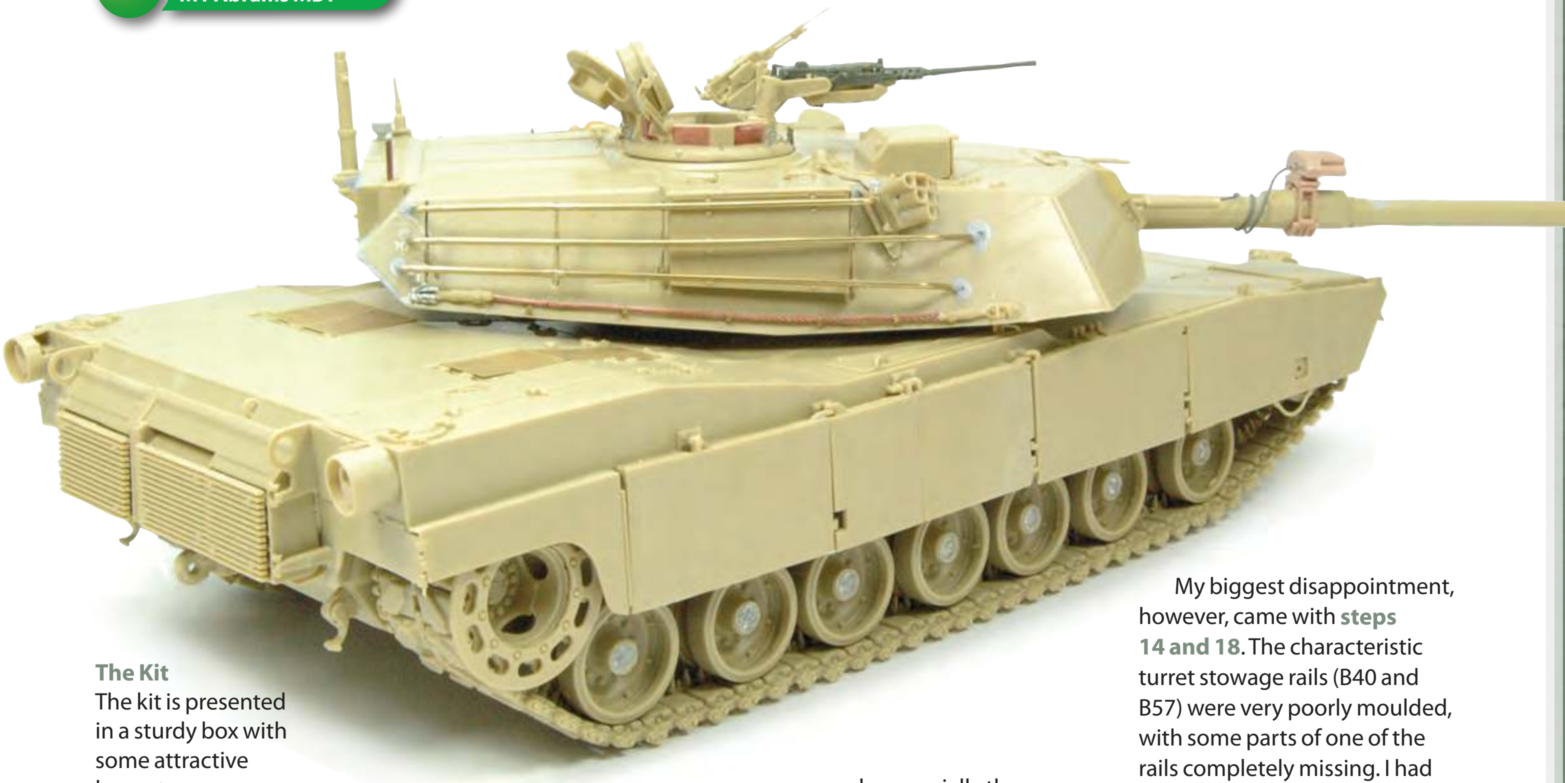
Panda Models 1/35 M1 Abrams MBT *(ref. PH35030)* is available from good model shops.

REFORGER '82 'CARBINE FORTRESS'

Each year between 1969 and 1993 the U.S. Army and Airforce held a strategic mobility exercise designed to test their ability to move men and equipment from the U.S. to Germany to meet a Warsaw Pact attack across the central German plain. The Return of Forces to Germany (REFORGER) exercises usually took place in the autumn or winter and also had a field exercise element, often involving other NATO forces as either Blue (defending) or Orange (attacking) forces. The REFORGER '82 exercises and their Field Exercise component, 'Carbine Fortress' were the largest to date, involving the movement of over 18,500 troops from the U.S. to Germany and 72,500 NATO troops in all, and took place amidst rising East-West tension. 'Carbine Fortress' was also notable for the first deployment of the new M1 Abrams MBT.

Tankograd's latest title in their American Special Series (3032) looks at Reforger '82 and the 'Carbine Fortress' exercise in particular. The book has a superb collection of 106 colour and 19 black-and-white photographs of a range of US and Allied Vehicles: the M60A1 and A3, Leopard C1 and, of course, the M1 MBTs; the M109 and M110 SPGs; the M113 APC; and a host of other soft-skinned and armoured vehicles. The colourful MERDC paint schemes and the heavily weathered appearance of the U.S. vehicles makes this a treasure trove of modelling inspiration. It also puts the scale of today's NATO exercises in eastern and central Europe in context. In 1982 and 1983 the Cold War really did run the risk of going hot. These exercises were seen by the Soviets as the possible precursor to a pre-emptive NATO conventional and nuclear strike. In all this the M1 Abrams played a crucial role, as indeed it does today as NATO once again confronts a perceived threat from the East.





The Kit

The kit is presented in a sturdy box with some attractive box art.

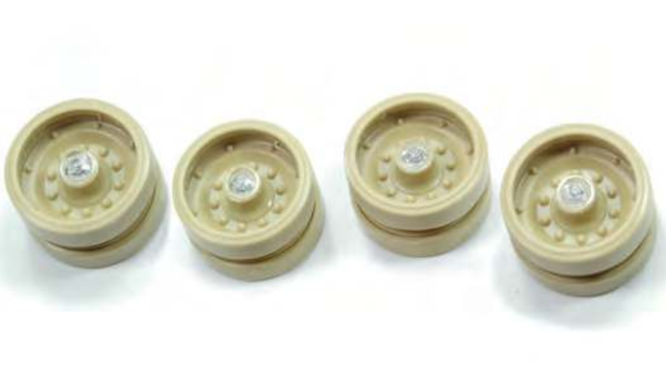
Steps 1-3: There are no surprises here, but remember to leave off the drive sprocket track retaining ring (C23) until after you've fitted the tracks. The parts that attach to the lower hull and hold the side skirts in place (C62 and D8) have very shallow attachment pins so I'd recommend leaving these off too at this stage.

Steps 4-5: It was at step 4 that I experienced my first problem. The torsion bars (D4) are very loose in the lower hull and you'll need to take care to get them properly. The road wheels, which are very nice with the characteristic clear hub of the Abrams, are also a very tight fit, so once they're on you'll struggle to get them off again. **Step 5** is very misleading: in a small box you have the instructions for assembling the tracks, two end connectors, a guide horn and the track shoe itself. Note that there are two different end connectors (D1 and D11). This isn't very clear on the sprues and the end connectors look identical once taken off, but it does matter as they are not interchangeable. I suspect I got some mixed up as roughly a third of the end connectors simply didn't fit and needed to be glued in place. To be honest, the tracks are a real trial and I would have much preferred to have the kind of link-and-length tracks that are included in the Rye Field Models' Desert Storm M1A1. I didn't have the patience to complete two complete runs of the tracks, so assembled just enough to hide them under the fenders. Because the tracks were so fragile I glued them in place at this stage and then fitted the upper hull. Be sure to get them the right way round: they should present a 'V' shape at the front when looking straight on at the tank. You also have at **step 5** a choice of rear mudguards, which will impact upon which side skirt you want to use, either with or without the cut out to prevent mud build up around the drive sprocket.

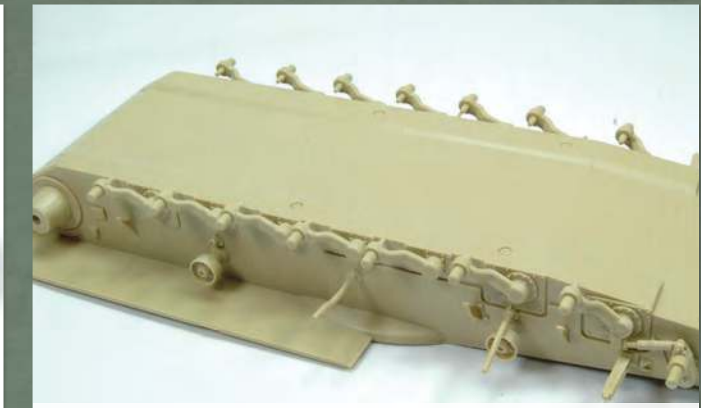
Steps 6-10: The next few steps are concerned with detailing the upper hull and fitting the characteristic exhausts grills. The latter are very well detailed and fitted perfectly. This was one of the weakest areas on the old Tamiya kit (and a challenge to fit on Dragon's M1 hull), but Panda have delivered a winner here. There is also some nicely done photoetch on the engine deck. At **step 9** you have to fit the side skirts. These are all individual pieces (with a choice of the original prototype rear piece (C44/45) or the cut down version introduced as a result of experience in the field (C41/43)) and you'll need to take care everything aligns properly, especially the rear piece with the rear mudguards (C46/47 or C26/33). The only other bit to watch out for are the very small stowage box clasps (PE15/16) which need to go round the right way and are prone to being lost to the carpet monster…The M1 was a very sleek looking vehicle compared to the M60 family and other previous US MBTs and, the problems with the tracks notwithstanding, there should be nothing here to trouble experienced builders.

Steps 11-20: I was feeling pretty optimistic at this stage but then examined closely Sprue B, which has all the turret parts. On my example the standard of moulding was much poorer than on the hull parts and, as you'll see, this had an impact on the assembly of the turret. The 105mm barrel is moulded in two parts and, as there isn't a suitable Aftermarket turned metal option, you'll have to make sure you're careful to remove any seams. The tow cables mounted on either side of the turret are provided in brass wire with plastic end connectors and photoetched retaining hooks (PE11). The rear bracket is also photoetched brass (PE7) and not easy to bend to shape even after annealing with an open flame. Personally, on the M1 at least, I prefer a simple plastic tow cable, as in the Academy or Rye Field Models kit.

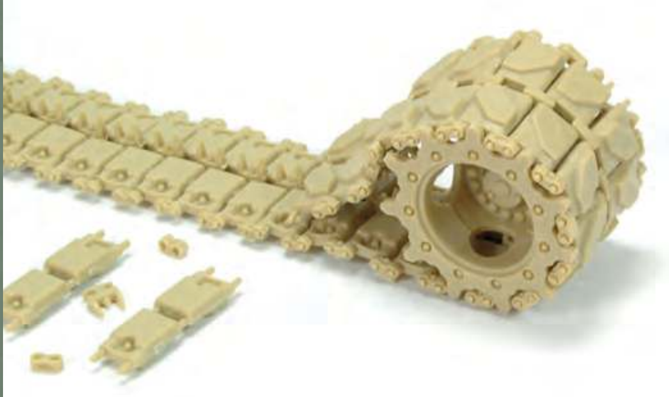
My biggest disappointment, however, came with **steps 14 and 18**. The characteristic turret stowage rails (B40 and B57) were very poorly moulded, with some parts of one of the rails completely missing. I had no alternative but to rebuild them using brass rod and some photoetched parts from an old Verlinden detail set for the M1A1 I had in the stash. On reflection, these are a little overscale but bending the rod to shape, using the kit parts as a template, was no easy task. I have since bought a second kit and I think I was initially unlucky as the second set of rails was perfectly useable. Both the M2 and the M240 MGs are pretty poor and soft in detail. I also struggled to assemble the gun cradle mount for the commander's M2 which had a very loose fit and no real locating pins, especially on parts B58 and B35. Speaking of the commander's cupola, I found I had to shave some plastic from the aperture on the turret to allow this to sit properly in place. A necessary addition to the cupola are the three lifting rings which are missing from the kit and which I added from an old Grandt Line set. Poor quality moulding also blighted the two parts C63 which were little more than blobs. I cut these from plastic card, drilled a small hole in the end, and glued them to the mantlet. I also found the turret was a very tight fit to the hull, so you might want to shave some plastic from the latter as it's difficult to fit in place once fully assembled.



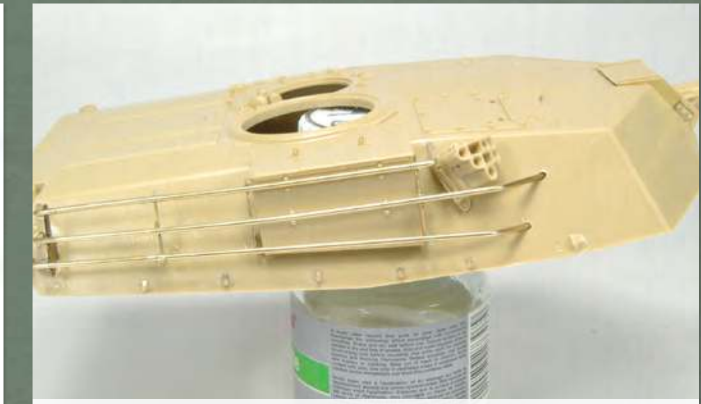
1 The roadwheels are nicely detailed with the characteristic clear hub of the Abrams, which allows the tankers to check the oil lubricant levels.



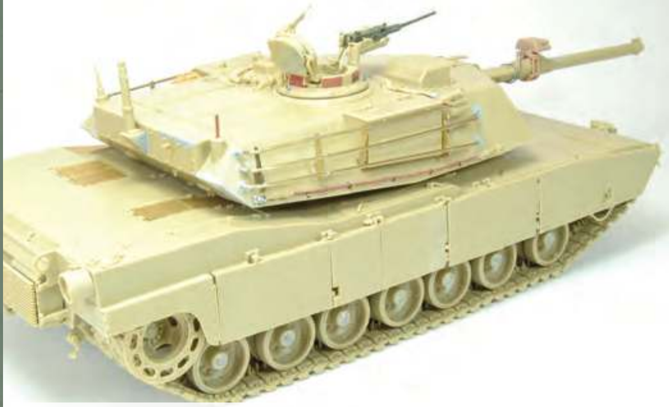
2 Again, a nicely detailed lower hull. The roadwheel mounts are, however, a little loose, so take care to ensure everything is lined up properly.



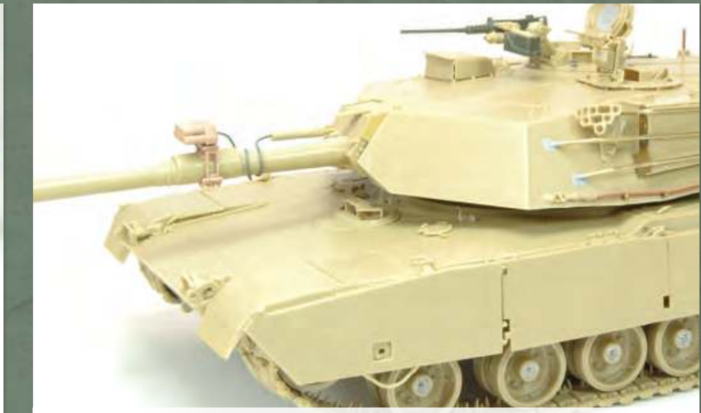
3 The individual track links which caused so much pain! The end connectors are numbered and left- or right-handed, so be sure not to mix the two up!



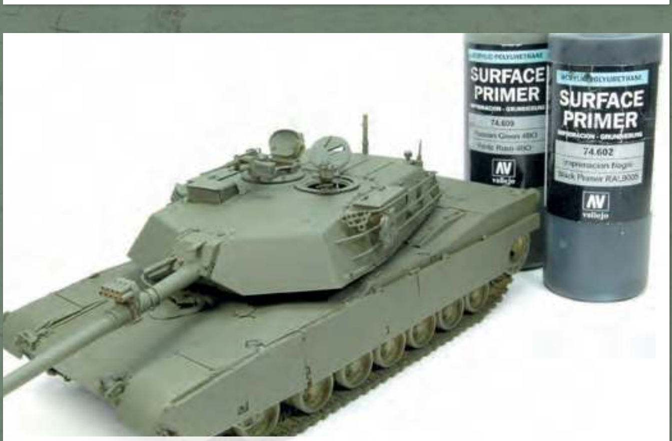
4 The turret stowage rails were badly deformed in the first kit I bought, so I had to resort to replacing them with brass rod. In hindsight, this is a little overscale.



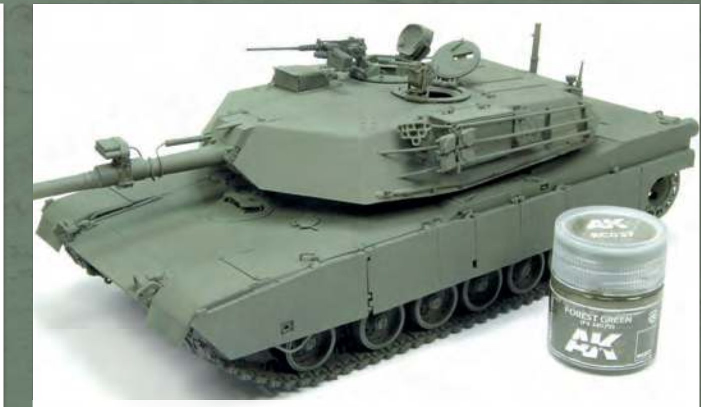
5 The assembled model. I replaced the kit's M2 .50cal with a much better detailed one from Tasca.



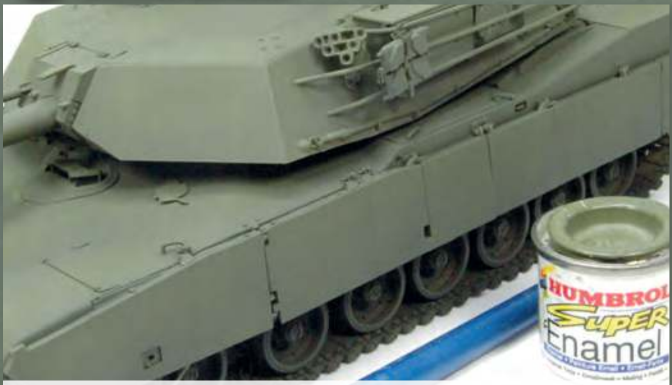
6 The other addition was the 'Hoffman Device' mounted on the barrel. This was sourced from Tamiya's 1980s 'U.S Modern Accessory Set'.



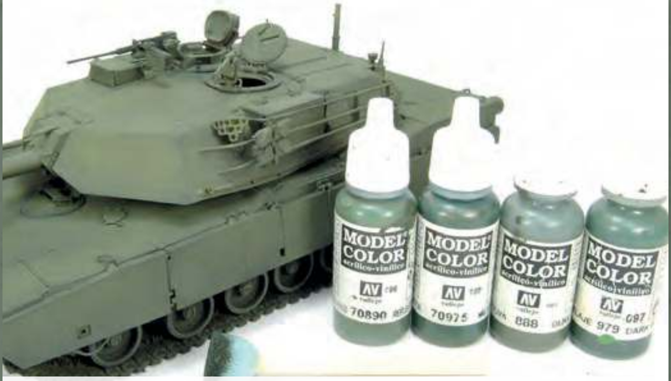
7 The model was primed with Vallejo's excellent polyurethane-based primers. These dry to an extremely smooth and durable finish.



8 AK Interactive's Real Color 'Forest Green' is an excellent match for the real thing and sprays beautifully



9 To add some interest to the otherwise dull green finish, I drybrushed the main armour panels with Humbrol 'Forest Green'. This added a nice depth to the Forest Green finish.

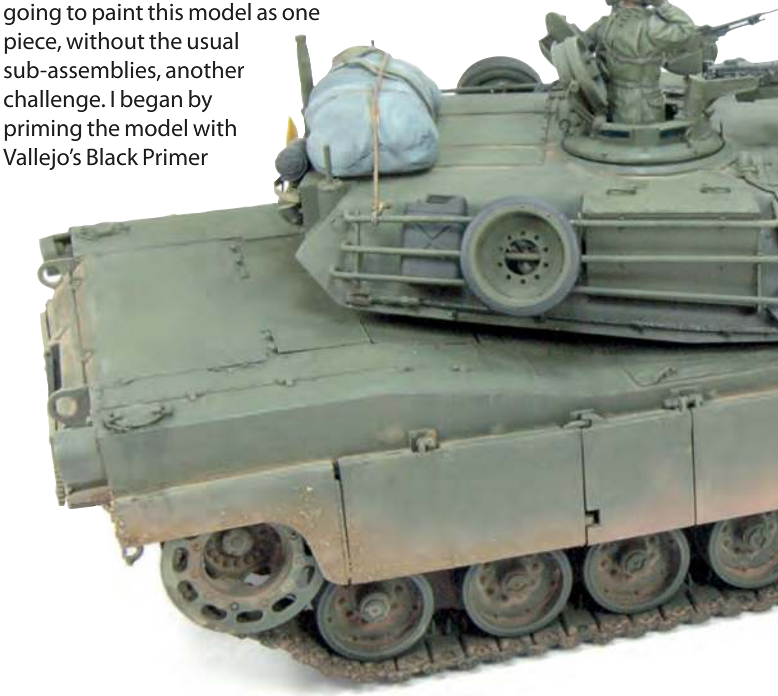


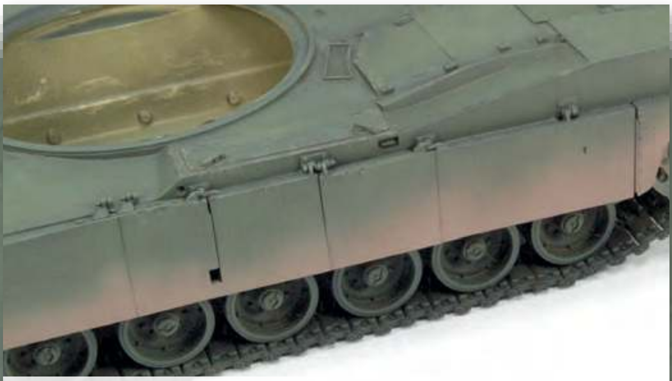
10 A range of Vallejo acrylics were used to impart a myriad of scratches and scuffs to the paintwork. The basic work was done with a sponge. . .

With the out-of-the-box assembly complete, I realised that there were a few additions necessary to represent an M1 seen in one of the Reforger exercises of the early and mid '80s. Apart from a single jerry can, the Panda Model kit doesn't come with any stowage and the 64th Armored Regiment Abrams I was modelling were all heavily laden with crew gear. The early M1s had a series of canvas straps, each side of the crosswind sensor, to hold crew gear instead of the turret bustle stowage rack introduced on the M1IP. For reference there is a clear drawing of these in the old Squadron Signal M1 Abrams in Action. These are completely absent from the Panda kit, so I represented these with Tamiya masking tape and some scrap photoetched buckles applied over some Tamiya bedrolls and Value Gear stowage. The other obvious omission is the obligatory spare wheel (or two). There are no spare wheels included in the kit, but there are two in the old Tamiya Modern U.S. Accessory Set (ref. 35141). These was sometimes attached to the turret roof with a special bracket, but on most of the 64th Armored Regiment tanks during Reforger '82 two appear to have been mounted either side on the stowage rails. Many of the tanks also had a large tarpaulin covering more gear on the rear turret roof and I used another Value Gear item here, secured with some of LZ Models' excellent 'scale rope'. The final item of stowage was a tank round container from Tamiya's earlier set which crews used to store more personal gear. This was one actually for the M60's main ammunition, but I'm not sure it matters in this case! The final addition was the 'Hoffman Device', the pyrotechnic device mounted to the tank's main gun to simulate cannon fire in field exercises. Most M1s in Reforger '82 were photographed with this fitted and I used the one included in the Tamiya accessory set. Lead solder was used to replicate the firing mechanism, which leads into the tube for the coaxial MG.

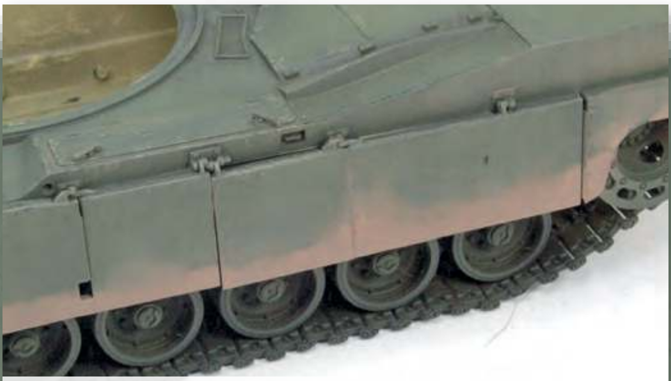
Painting and Weathering

If are you modelling US MBTs from the 1970s and early 80s you have the option of one of the colourful MERCDC or DUALTEX camouflage schemes, while from 1987 the equally attractive three-tone NATO scheme is the only game in town (until the CARC Tan post OIF). For early '80s M1s, however, it's Forest Green only. Forest Green is a particularly lustreless shade of green and the challenge here was to try and make it interesting without resorting to, in my opinion at least, unrealistic 'colour modulation' effects. I was also going to paint this model as one piece, without the usual sub-assemblies, another challenge. I began by priming the model with Vallejo's Black Primer from the underneath and then Russian 4BO Green from above. In hindsight I should have tried the 'Black and White' method, using some pre-shading and pre-highlighting to break up the dull monotone of the Forest Green. With the primer dry, I sprayed AK Interactive's Real Color 'Forest Green'. This is an excellent match for the real thing and sprayed beautifully, but once





13 To show the accumulation of mud and dust on the side skirts, I applied Tamiya Flat Earth over a coat of airbrushed hairspray.



14 This was then partially removed with warm water. The process was repeated several times to build up the layers.

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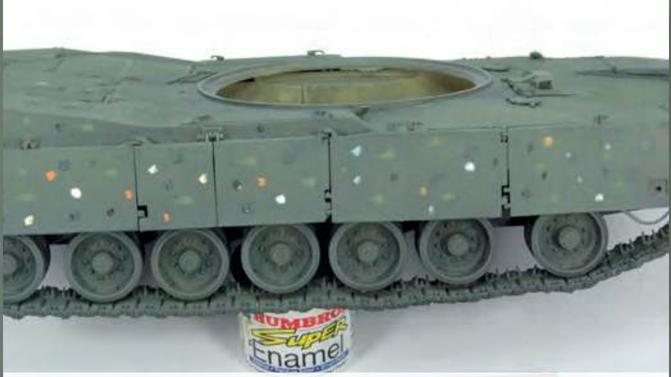
MODEL COLOR

11 While a fine brush was used to paint larger and more concentrated chips on the side skirts and other areas of high wear.



12 To further fade and discolour the vertical sides of the tank, especially the side skirts and turret sides, I used the oil dot technique.

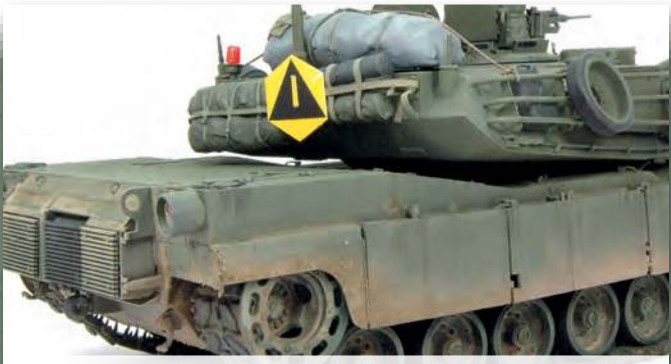
complete the model was as dull as I feared. At this stage I applied a gloss coat over the relevant areas and applied the decals. The Panda instructions aren't particularly helpful here, so I suggest consulting your references carefully.

In an attempt to bring some life back into the paintwork I decided to drybrush the model with Humbrol Forest Green (150). Rather than using this to highlight details, as with traditional drybrushing, I used it to impart a slight sheen and depth to the big blocks of green. The effect was subtle but it did make a difference. These tanks were very new during the autumn of 1982, yet the photographs show plenty of scuffs, scratches and discoloration of the paintwork, so the next step was to add these effects. Here I used a variety of Vallejo acrylic greens, most notably Dark Green and Russian Uniform Green, and applied a myriad of scratches and scuffs with both a fine pointed paint brush and a sponge. On the side skirts I made some deeper scratches, first with Russian Uniform Green and then, inside these marks, with German Camo Black Brown. I find these two colours among the most versatile of the entire Vallejo range and seem to use them on all my models at the moment.

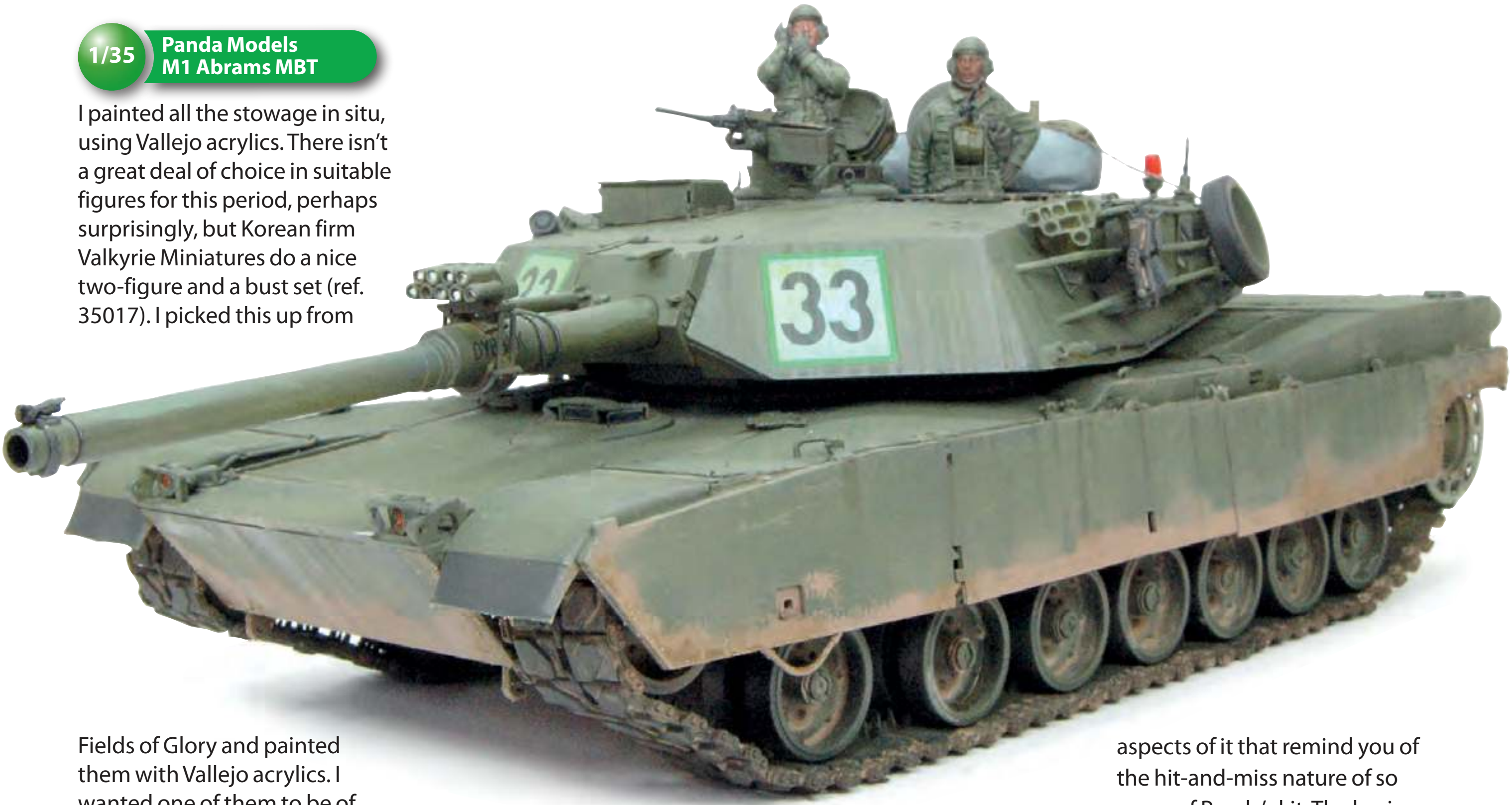
Next it was time to add the dirt and dust. On the side skirts and vertical sides of the turret I used the oil dot fading technique to add a patina of dust and discoloration. Recently, I have been struggling with oil and enamel-based washes and wanted to try something new on this model. Rather than using pre-mixed products, I decided to paint heavily thinned Vallejo Buff and Earth Brown into the recesses on the hull and turret and then gently remove most of it with a moistened brush. It's important to wet the surface with water prior to applying the paint and work quickly before the paint dries, but the result is very subtle and dries to a pleasingly matt finish. It allows much more control than pigments and being entirely water and acrylic based it's easy to build up the layers.

On the side skirts and on the lower hull I tried a different technique to show the various layers of mud thrown onto the tank as it drove across the south German countryside. The 'hairspray technique' is best known for applying winter whitewash or heavy rust and chipping, but it is equally good for mud and dirt effects. I sprayed a coat of hairspray over the relevant areas with my airbrush and then sprayed a coat of Tamiya Flat Earth. After a few minutes I began scrubbing gently at the paint with a brush moistened with warm water, activating the hairspray and causing the Tamiya Flat Earth to lift off in a pleasingly random fashion. I repeated this several times until I got the result I was after. To layer some heavier accumulations of dirt on the lower hull and running gear I used both AK Interactive's Dirt and Dust Deposits and Vallejo's Mud Effects. The only place I used pigments was on the tracks, where I painted a heavy mixture of Mig's Europe Dust and Dried Mud suspended in acrylic thinner. Once this was dry I picked out the rubber track pads with a very dark grey Vallejo acrylic mix. The final effect was to rub some graphite around the edges of the hatches, the rims of the smoke dischargers and along outside edges of the tracks.

15 The figures from Valkyrie Miniatures were the perfect the addition, but like the tank itself they were very green!



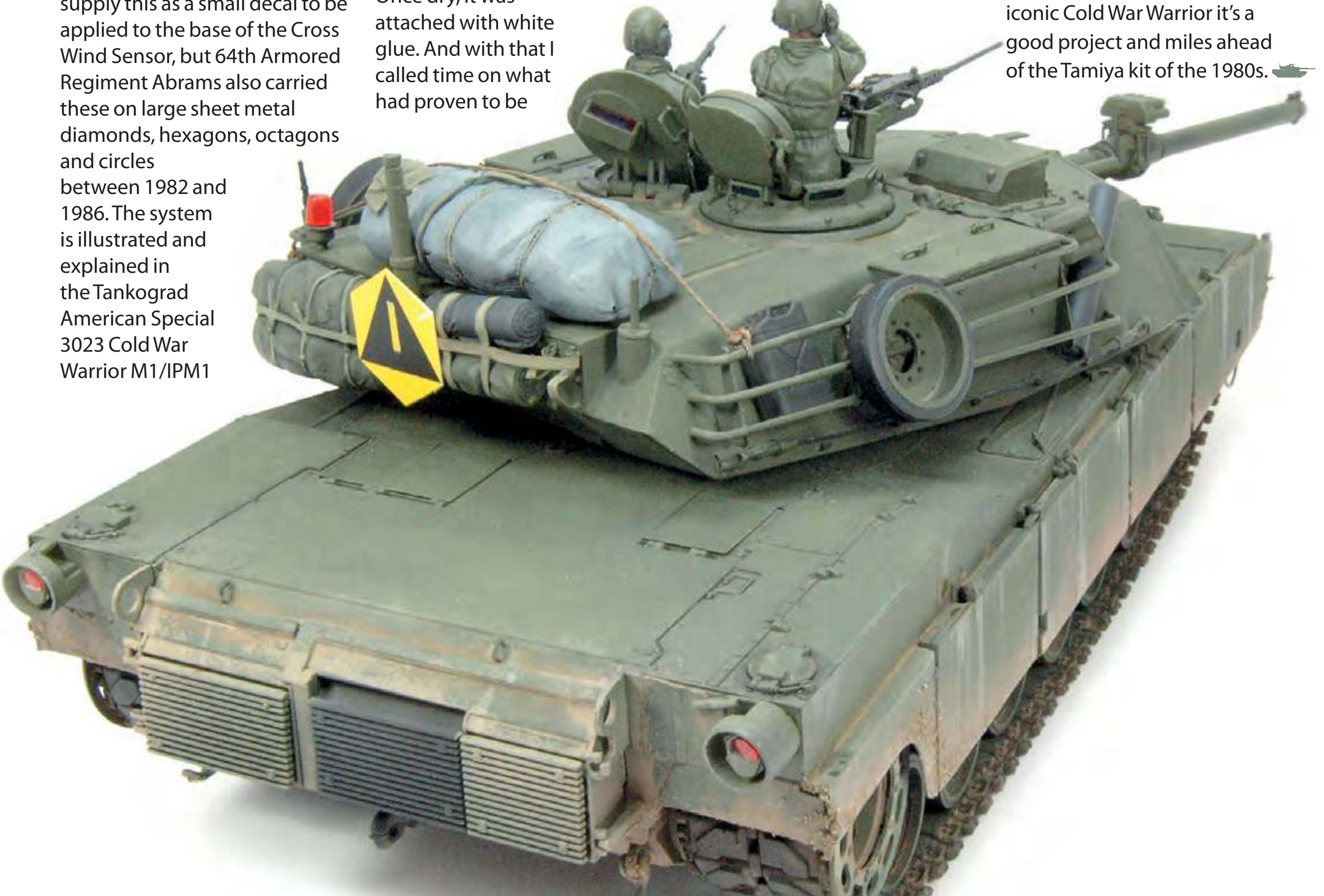
16 The distinctive hexagonal tactical marking and the stowage mark this Abrams out as belonging to the 2nd Battalion/64th Armored Regiment during Exercise Carbine Fortress during September 1982.



I painted all the stowage in situ, using Vallejo acrylics. There isn't a great deal of choice in suitable figures for this period, perhaps surprisingly, but Korean firm Valkyrie Miniatures do a nice two-figure and a bust set (ref. 35017). I picked this up from Fields of Glory and painted them with Vallejo acrylics. I wanted one of them to be of African-American descent and looked online for some Vallejo matches for the correct skintone. I found a very good one on the wargaming figure site 'Cool Mini or Not' (http://www.coolminiornot.com/articles/1310-ethnic-skintones) and was pleased with the result. The last addition to the model was the large hexagonal tactical marking on the rear. Panda supply this as a small decal to be applied to the base of the Cross Wind Sensor, but 64th Armored Regiment Abrams also carried these on large sheet metal diamonds, hexagons, octagons and circles between 1982 and 1986. The system is illustrated and explained in the Tankograd American Special 3023 Cold War Warrior M1/IPM1 Abrams. Drawing a regular hexagon on plasticard proved much more difficult than it should have been, but MMI contributor Alex Wegner came to the rescue and drew some templates up for me to copy onto plasticard. Once cut, it was primed, sprayed yellow, masked and sprayed black and then the numeral masked and sprayed white, then yellow. Once dry, it was attached with white glue. And with that I called time on what had proven to be quite an involved and lengthy out-of-the-box build.

Conclusion

The early M1 is a great subject with some great weathering possibilities. Panda Model's kit is, to be honest, a bit of a disappointment. Overall it's a good kit, but there are certain aspects of it that remind you of the hit-and-miss nature of so many of Panda's kit. The basic turret and hull are excellent but some details, such as the commander's and loader's MGs are just a bit sloppy. The tracks are a real challenge and compared to those produced by Meng, Rye Field Models or DEF Models fall short of today's high standards. That said, for experienced modellers wanting to build a representation of this iconic Cold War Warrior it's a good project and miles ahead of the Tamiya kit of the 1980s.



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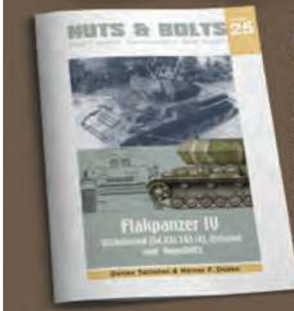

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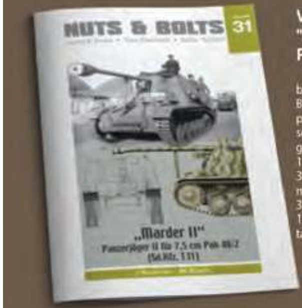

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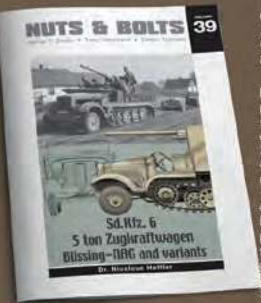

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Chris Jerrett transforms **Skif's** MT-LB.

WORK HORSE TO WAR HOR

I have to admit to a certain fascination with the Armed Forces of the Russian Federation, not least because of their range of military vehicles. Among these is the MT-LB (*Mnogotselevoy Tyagach Legky Bronirovanny* – transl. 'Multi-Purpose Towing Vehicle, Light Armoured'). In the late 1960s, a development programme was underway to replace the AT-P series of artillery tractors, which led to the introduction of the MT-L (based on the PT-76 amphibious light tank chassis). The MT-LB was the armoured variant of the vehicle, and entered production in the early 70s. It was cheap to build, as it used many existing components, such as the engine that was originally developed for commercial trucks. Testament to its success, the MT-LB has remained in service, both in its original APC role, and in a multitude of variants, including the anti-aircraft version. In the 1990s the MT-LB was modernized Muromteplovoz and MT-LB 6M1B3 (properly MT-LBM izdeliye 6MB3)) version is an anti-aircraft vehicle equipped with the GSh-23V 23mm autocannon, AGS-30 30mm automatic grenade launcher and 12.7mm Kord MG. The MT-LB remains an important component of the Armed Forces of the Russian Federation and nations worldwide and has seen action recently in both Ukraine and in Syria.

The Model

It would appear that 1/35-scale models of the MT-LB are very limited; the excellent recent releases from Trumpeter, and a few older ones, released over a decade ago, from the Ukrainian company, Skif. While Trumpeter offer an impressive kit of the '6MA' version (complete with fully detailed interior), it was the **Skif kit** of the '6MB1B3' vehicle that I decided to tackle. Admittedly, this is a far more basic kit but I felt that with certain modifications and refinements, here was the potential for a really decent model.

Acquiring this particular kit is fairly difficult; those that are available on eBay are currently priced at around £22.00. So, what can you expect for your money? … six sprues of injection-moulded components, a small number of resins parts, vinyl tracks, two frets of photoetch details, metal grab-handles (pre-shaped), and a decal sheet of markings for Russian, Polish and Czech vehicles. Assembly instructions are presented in 27 stages, though no indication is given as to the positioning of the markings.

As with any project, the important task now was to source reliable reference information and photographs. Fortunately, I was able to find a large selection of high-quality images on the Primeportal website (www.primeportal.net), and these proved to be very useful indeed.

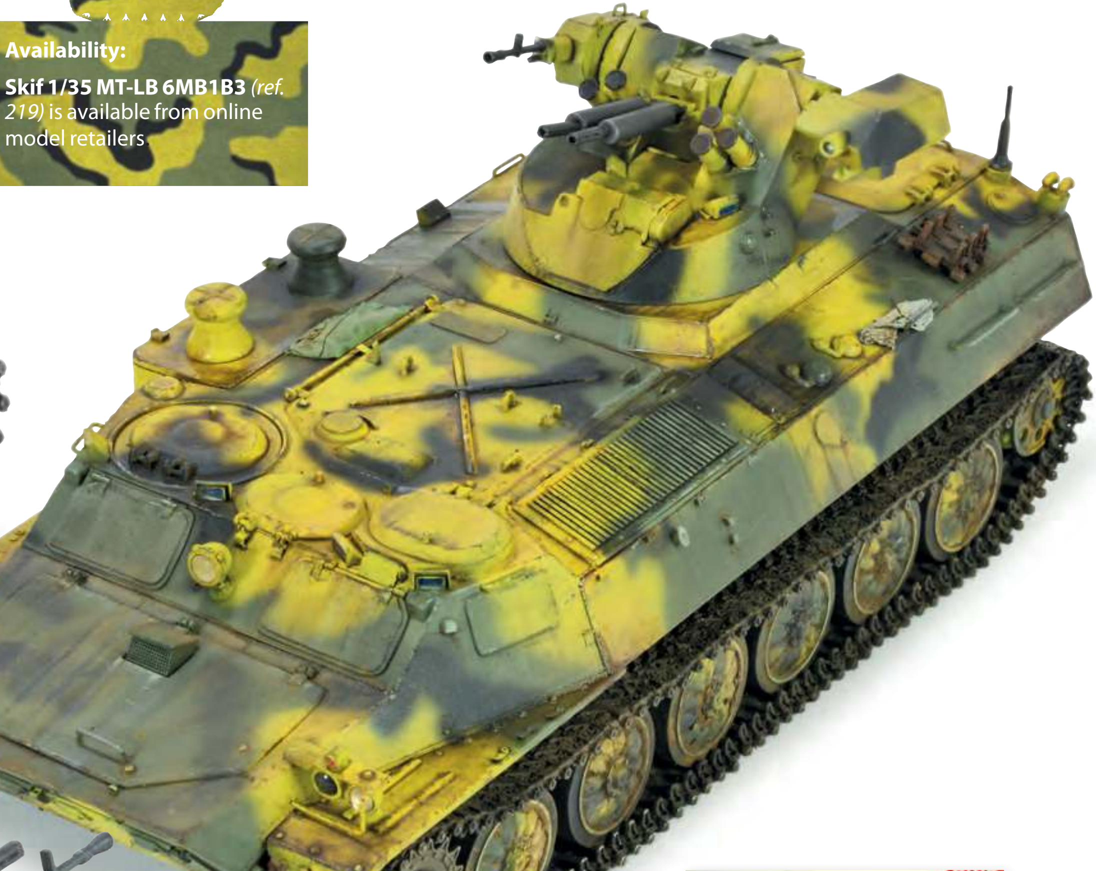
Back to the kit … examining the contents of the box, my first impression was that the plastic used for the main

components is rather soft; particular care would be required when detaching these from the sprue, and throughout the construction.

Having decided which areas were to be modified, I removed the unwanted portions, in preparation for the replacement items. A case in point was the engine compartment cover, which lacked important detail such as the dividing line between the two panels. Other poorly detailed areas around the upper and lower hull were also attended to with the help of a No.10 chisel blade and wet & dry sandpaper.

Availability:

Skif 1/35 MT-LB 6MB1B3 *(ref. 219)* is available from online model retailers



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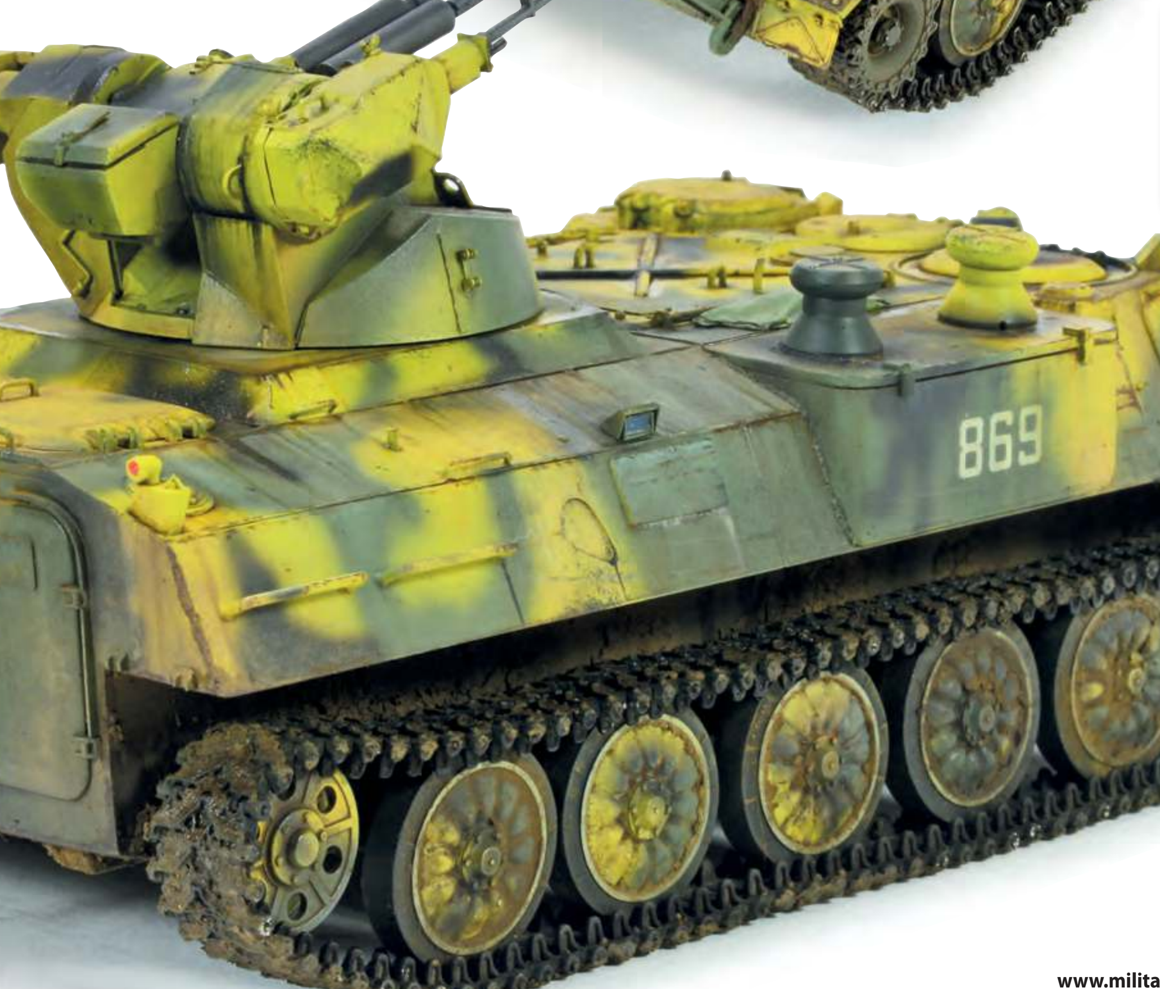
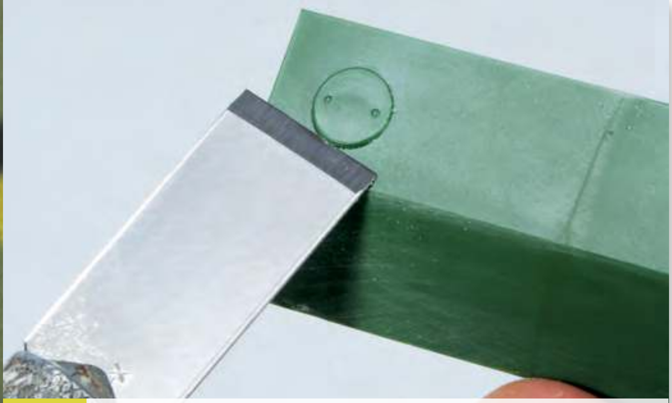
SKIF
MT-LB 6M1B3
1:35
No.219



1 Having a variety of tools at hand (including a knife handle with a chisel-blade) made the scratch-building work and detailing so much easier.

2 A try-square proved to be invaluable when checking alignment and angles between panels during the assembly.

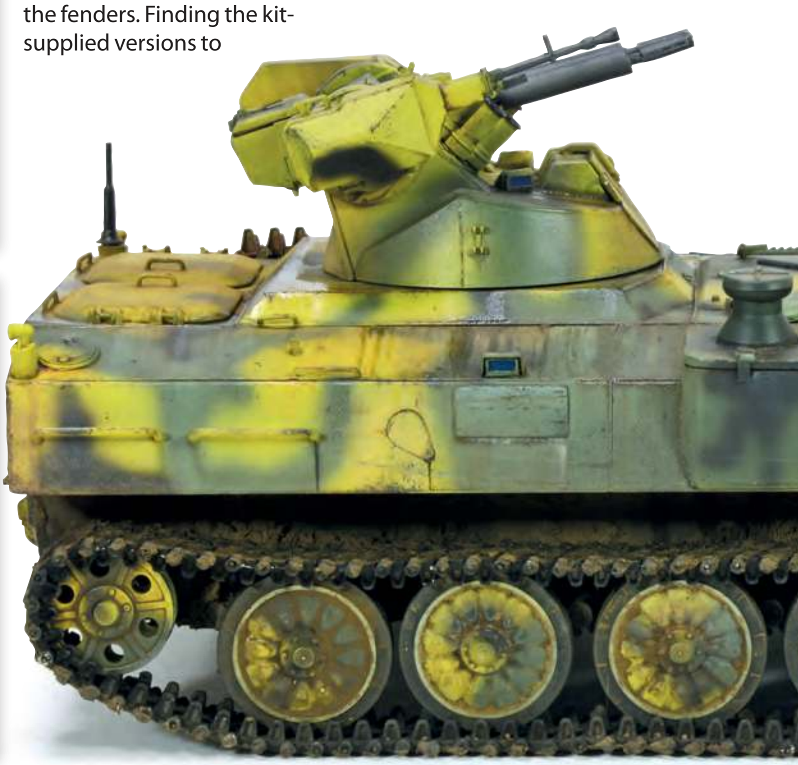


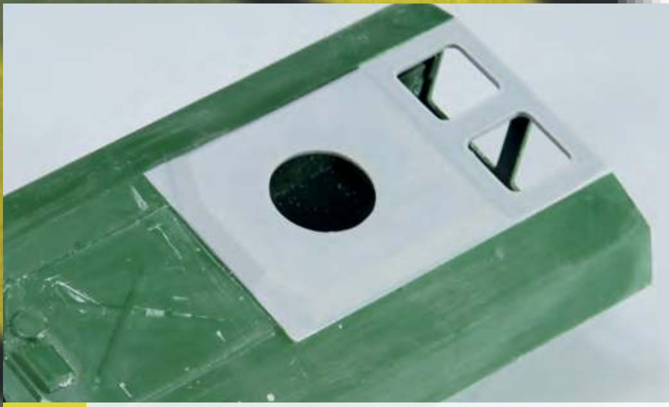
3 Certain parts of the kit were carefully cut away using the chisel-blade, so as not to damage the surrounding area.

A further issue (soon to be evident) was the loose fit of certain components. Because of this, I needed to use a try square to constantly check the alignment and angles between panels during the assembly. With offending areas removed, and replacement parts added, I made a start on replicating weld seams. There are various ways to represent welding in this scale. Since the panels on most modern military vehicles are attached using a process called 'TIG Welding', the best method is to use stretched sprue, secured with liquid cement. Once in position, the sprue is left for 30 minutes to allow the glue to fully harden, and a blunt tool used to create a characteristic weld-seam texture.

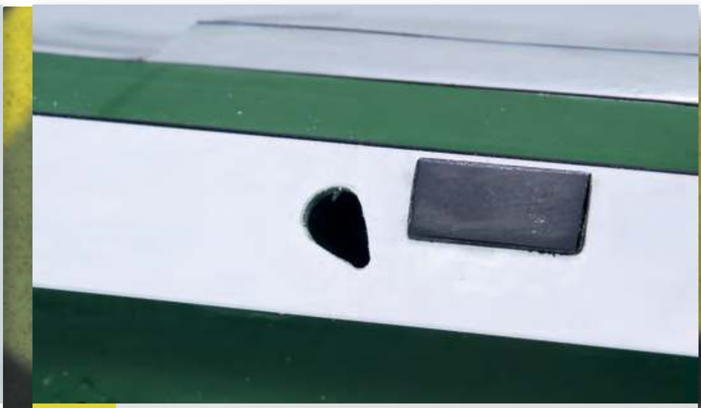
Time now for some scratch-building … beginning with the fenders. Finding the kit-supplied versions to be overly thick and inaccurate in shape, I replaced these with brass sheet, and added strengthening ribs using half-round plastic profiles. Having dealt with other problems around the model (and made the necessary corrections), I installed the suspension arms, and attached a set of **replacement road-wheels** (compliments of **MasterClub** – *ref. MC2-35007*). Thankfully, these were a perfect fit and (incidentally) are also suitable replacements for the Trumpeter kit.

Progress was somewhat delayed, as I attempted to replicate the front-mounted trim vane. Reference photos show this to have four water vents positioned near the upper edge. After several abortive attempts at scratch-building





4 The rear section of the hull top was replaced with plastic sheet for a more accurate representation.



5 Lengths of stretched sprue were used to replicate weld seams, and textured with the end of a blunt tool.

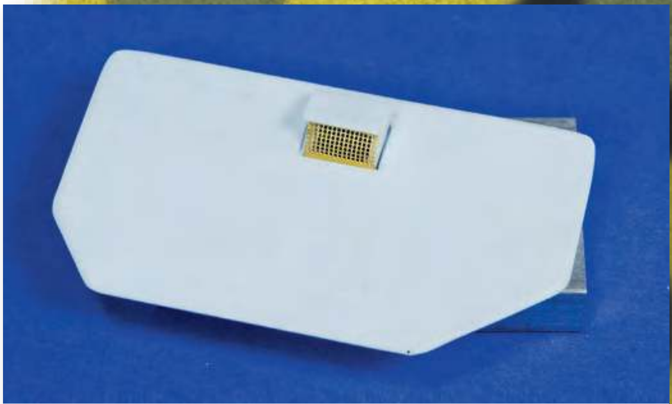
these, I finally settled for a **3-D printed** set, kindly supplied by **Pete Haman Model Services**. With the remaining hull details fitted, the next consideration was the tracks. Unimpressed by kit's vinyl offerings, I had already decided to replace these with **Friulmodel's fully-workable metal set** *(ref. ATL-56)*, which conveniently includes a pair of metal drive-sprockets.

Moving on to the turret assembly, I replaced the poorly detailed AA gun barrels with plastic tube, and added a set of turned-brass smoke grenade dischargers. However, I retained most of the other plastic and resin components, as these were perfectly adequate.

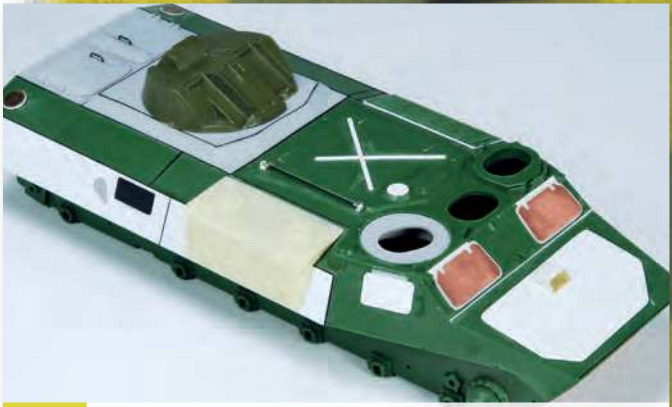
Painting, Marking & Weathering

The model was now treated to a coat of primer. As well as preparing the surfaces for subsequent painting, this would help to fill any gaps, and ensure that tiny detail parts were firmly held in place. Researching the colours of current Russian military vehicles, I was amazed just how many different camouflage schemes are employed. One that immediately caught my eye was a disruptive scheme of green, sand-yellow and black. Though the vehicle's base coat would actually be green, it seemed more sensible to begin with the lightest colour.

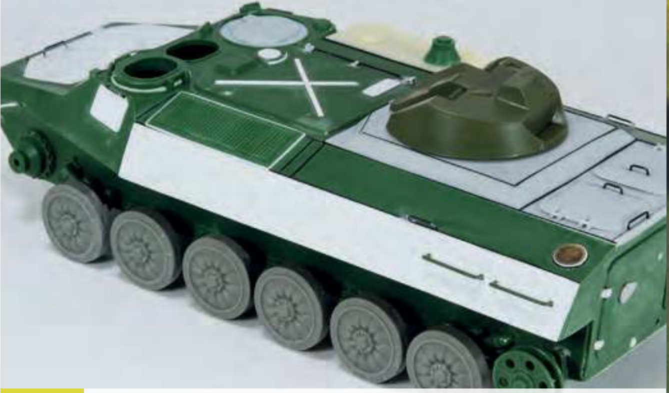
I tend to use Tamiya acrylics, but finding no suitable match for the yellow, I made my own shade from an 8:2 mix of XF-4 (Yellow Green) and XF-3 (Flat Yellow), with a small amount of X-2 (White) to lighten the colour. Having applied the base colour, I allowed the model to completely dry before adding the second colour – XF-65 (Field Grey) – which seemed to be a good scale-match for the green. Of course, it was important to check reference photos to ensure that the camouflage pattern was accurate. With the final colour (black) added, I masked around the spare track-links, and gave them a coat of XF-64 (Red Brown).



7 Having built a new front panel, I added the open vent to provide further interest.

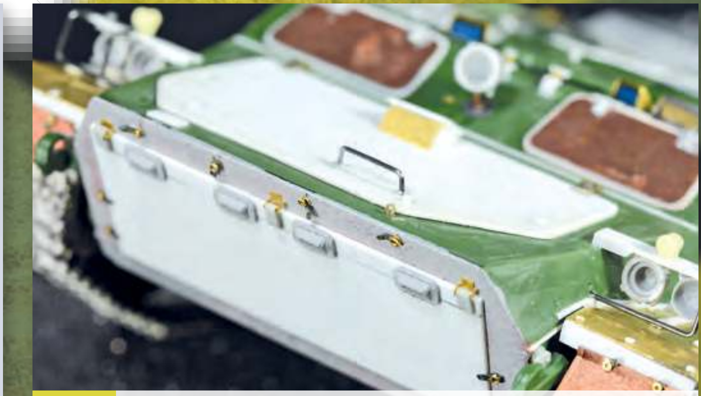


8 Progress so far . . . note the combination of kit parts (plastic, resin and photoetch), and various scratch-built items.

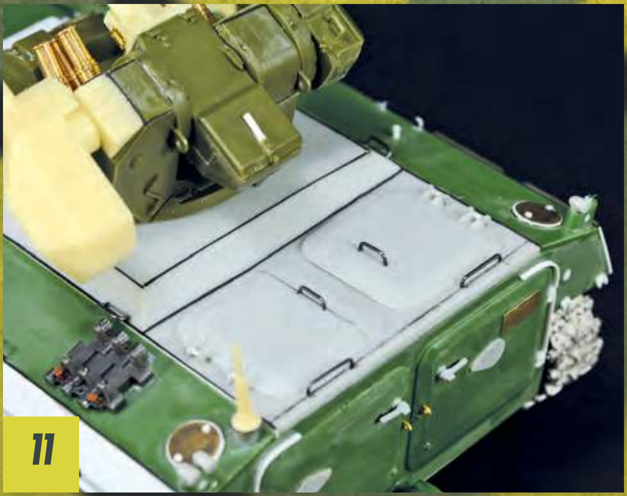


9 Although I retained the kit-supplied idlers, I replaced the road-wheels with a resin set from MasterClub. Not yet fitted, the drive sprockets were included with the metal tracks supplied by Friulmodel.

6 The overly thick fenders were replaced with brass sheet, and strengthening ribs added using half-round plastic profiles.



10 Having reliable reference photos allowed me to add lots of detail to the model. Note the four vents near the top of the trim vane, 3-D printed by Pete Haman Model Services



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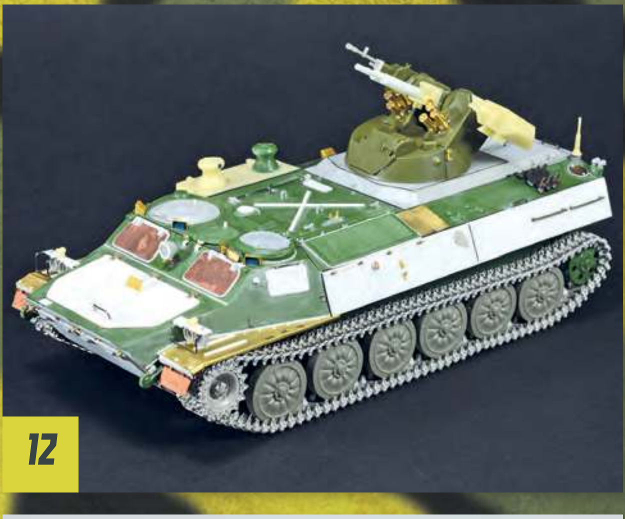

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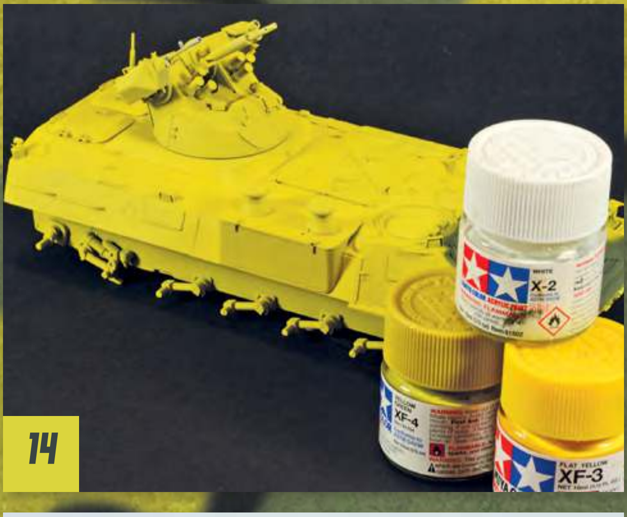
X-2
XF-4
FLAT YELLOW
XF-3

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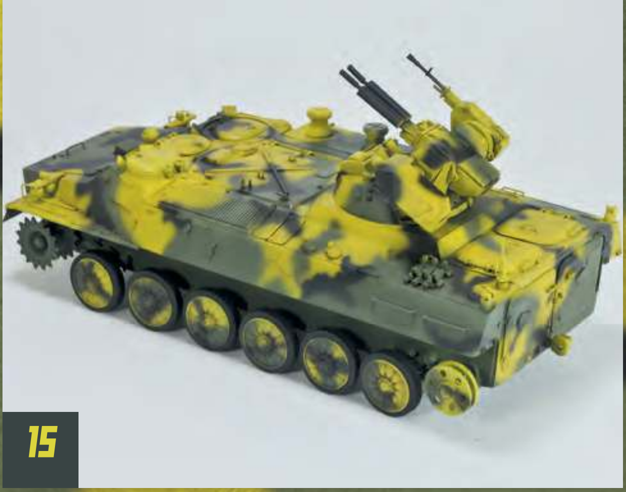

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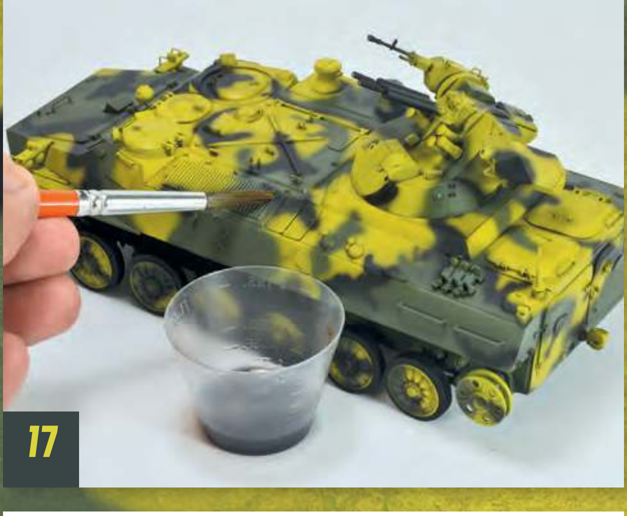

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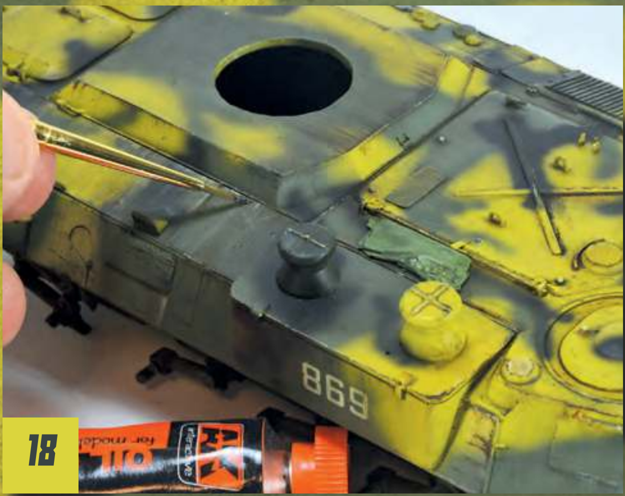

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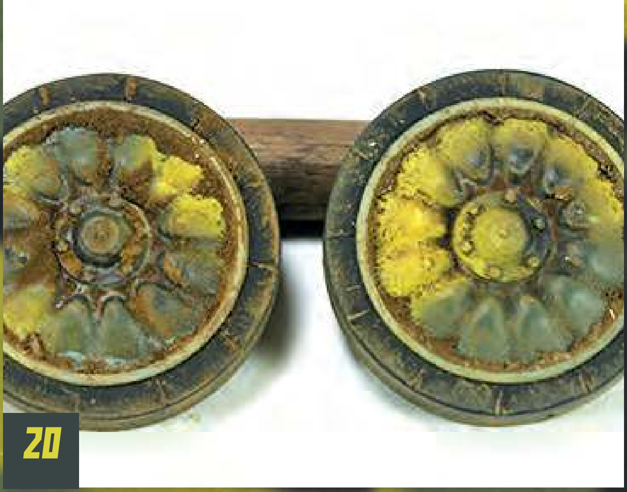

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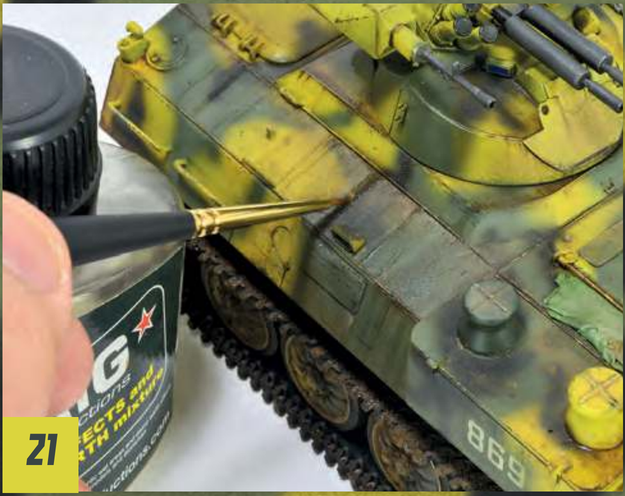

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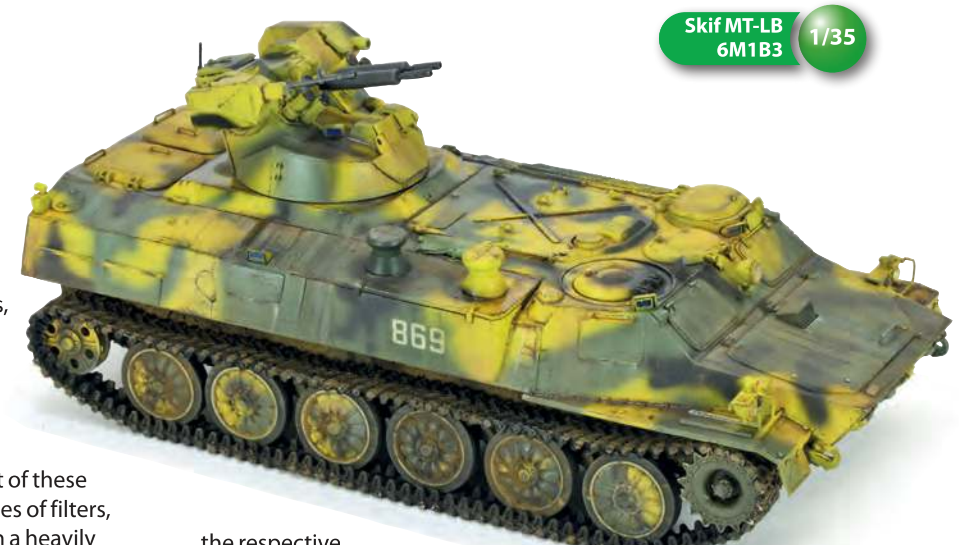

The entire model was now treated to a coat of gloss varnish, in preparation for adding the decal markings, and to protect the paintwork during the subsequent weathering stages. The first of these would be a series of filters, beginning with a heavily diluted dark brown, which would help to reduce the contrast between the three colours. This was followed by black (again diluted) to emphasise shadow in all recesses. Now using enamel pin-washes (ratio 4:6 paint/thinner), I was able to further enhance the detail, and create greater contrast between the various sections of the vehicle.

And so to the highly debated subject … chipped paintwork. Photographs confirm that surface damage on these vehicles is minimal, so with this in mind, I limited the effect to a few minor scrapes. Beginning with a lightened version of the respective base colour, I replicated scratches and chips, and then added a touch of dark brown or metallic grey to suggest damage that had extended beyond the primer.

Now using a heavily diluted sand tone, I applied a light dusting to the surfaces, and followed by brushing with various oil colours over vertical and sloping panels. Once applied, these were dragged downwards with a moist brush to give an impression of dirt streaks. Areas where mud would naturally accumulate were treated to an initial wash, followed by successive layers of light and dark pigments. Similar colours were also flicked from a stencil brush over lower portions, where mud would be thrown up from the tracks. As for the upper surfaces of the vehicle, any mud would have quickly dried, so the pigment application was limited to lighter tones.

Satisfied with the result so far, I was ready to add the finishing touches: a few light strokes of a metallic pencil to highlight worn areas such as grab handles, the edges of hatches, and crew access points; black pigment to replicate 'sooting' around the exhaust outlet; and a few wet streaks to suggest rain marks.

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11 Although the kit includes a selection of metal grab-handles, I replaced these with thicker wire for a more realistic appearance.

12 Construction complete, time now to add some colour.

13 Having broken the model down into sub-assemblies, I applied a coat of Tamiya's Light Grey Primer.

14 The base colour was made from an 8:2 mix of XF-4 (Yellow Green) and XF-3 (Flat Yellow), and lightened with the addition of a small amount of X-2 (White).

15 Checking against various reference photos, I added the remaining camouflage colours. Rarely seen on military vehicles, the wheels are treated to the same camouflage pattern.

16 With the three colours applied, I masked around the spare track-links, and gave them a coat of XF-64 (Red Brown).

17 I now proceeded to apply a series filters: dark brown, to reduce the contrast between the three colours; and black, to emphasise shadow in all recesses.

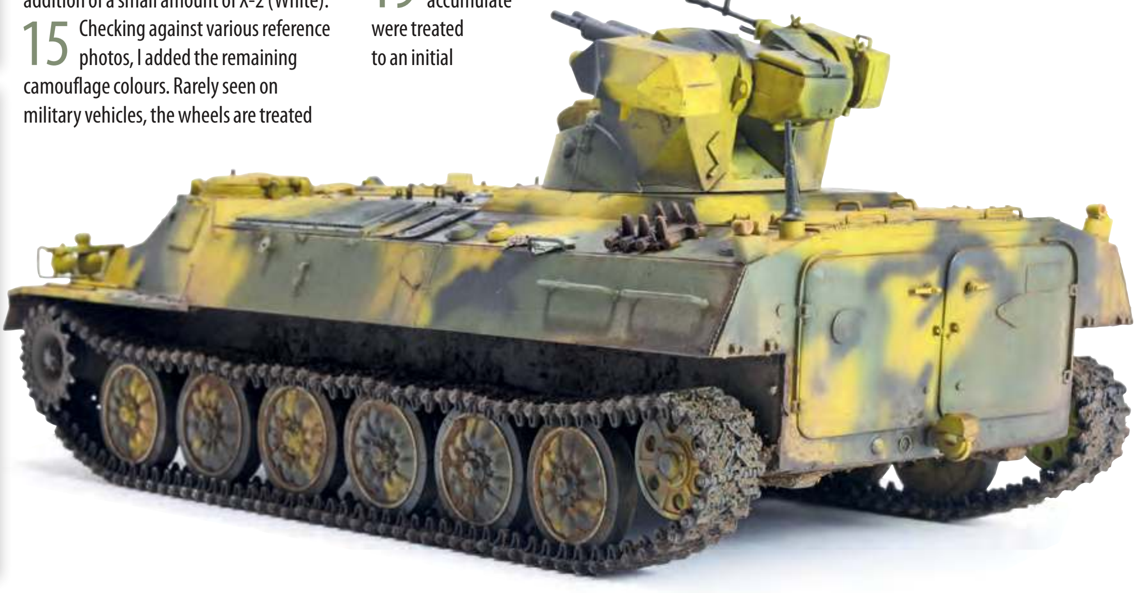
18 AK Interactive's oil colours were also used during the weathering process.

19 Areas where mud would naturally accumulate were treated to an initial wash, followed by successive layers of light and dark pigments.

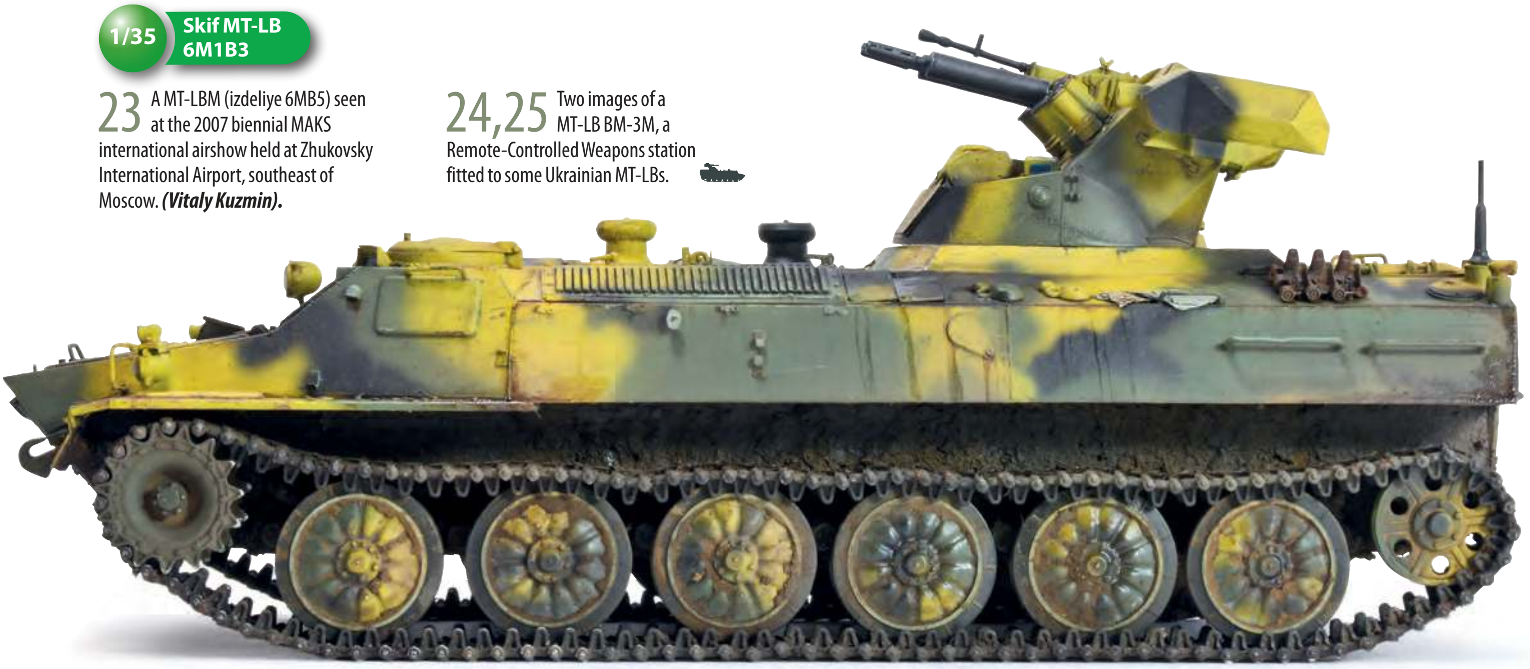
20 The road-wheels were also treated to heavy weathering and a build-up of dirt and mud.

21 AK Interactive's P409 (Wet Effects & Damp Earth Mixture) was brushed down certain panels to replicate rain marks.

22 You can appreciate the final look of the various wet and dry effects in this detail image.



1/35 Skif MT-LB 6M1B3



23 A MT-LB (izdeliye 6MB5) seen at the 2007 biennial MAKS international airshow held at Zhukovsky International Airport, southeast of Moscow. ***(Vitaly Kuzmin).***

24,25 Two images of a MT-LB BM-3M, a Remote-Controlled Weapons station fitted to some Ukrainian MT-LBs.

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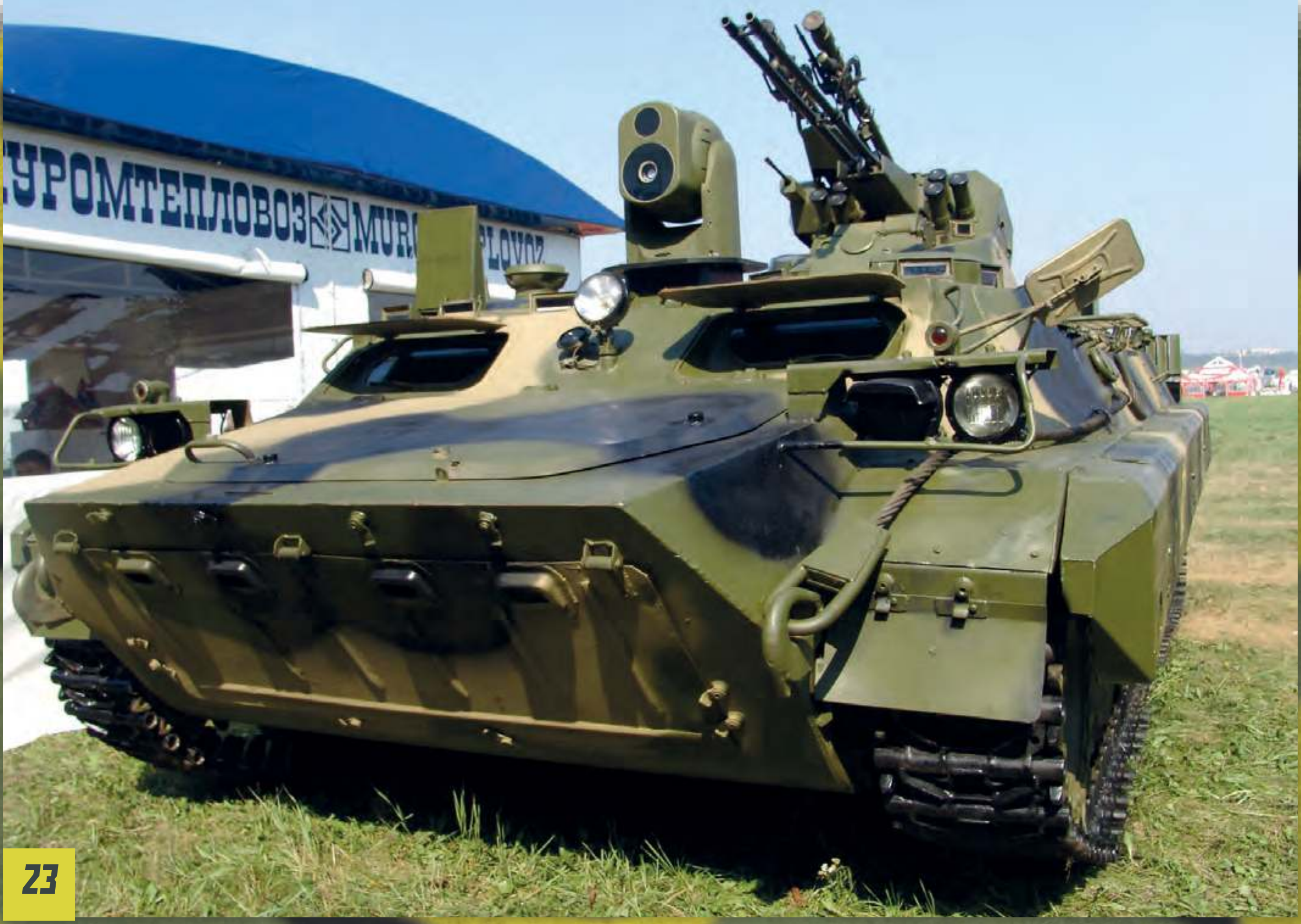

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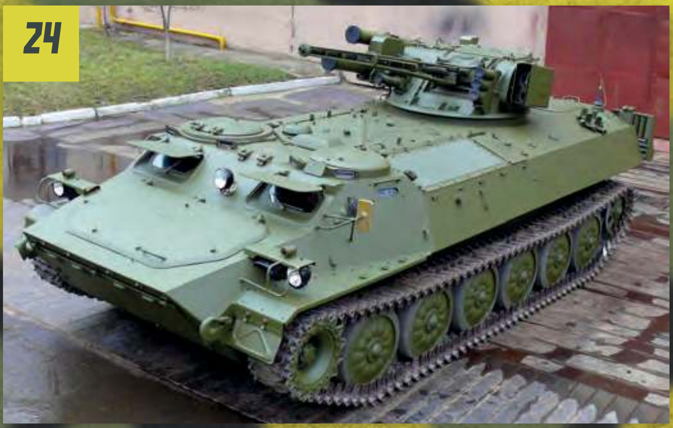

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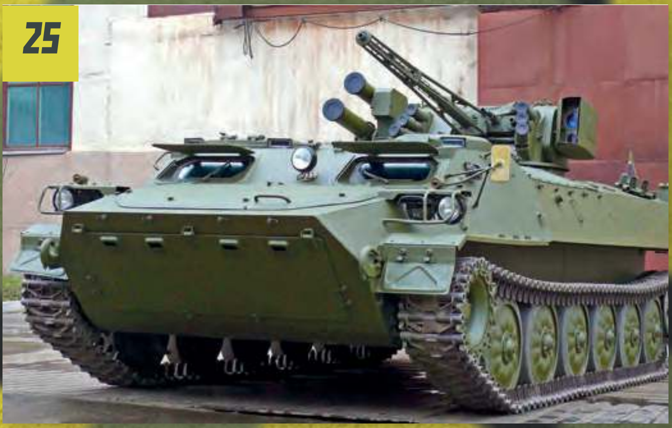

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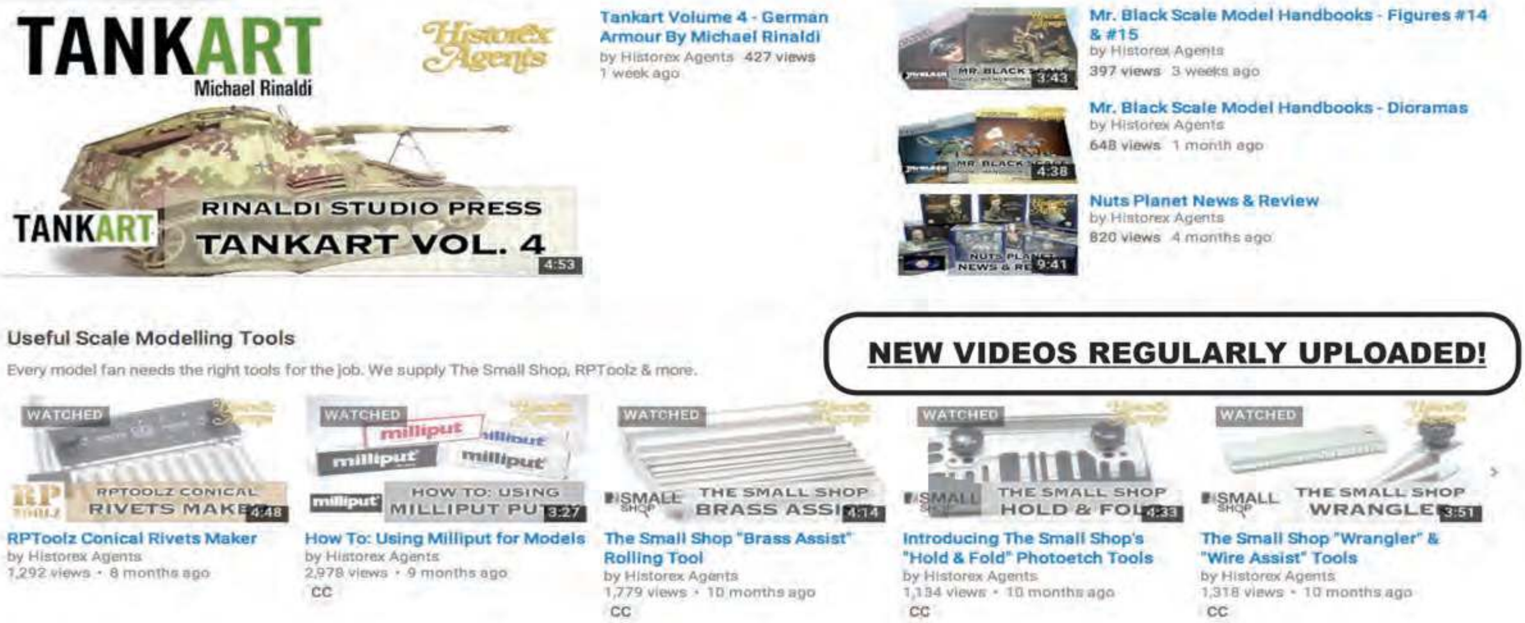

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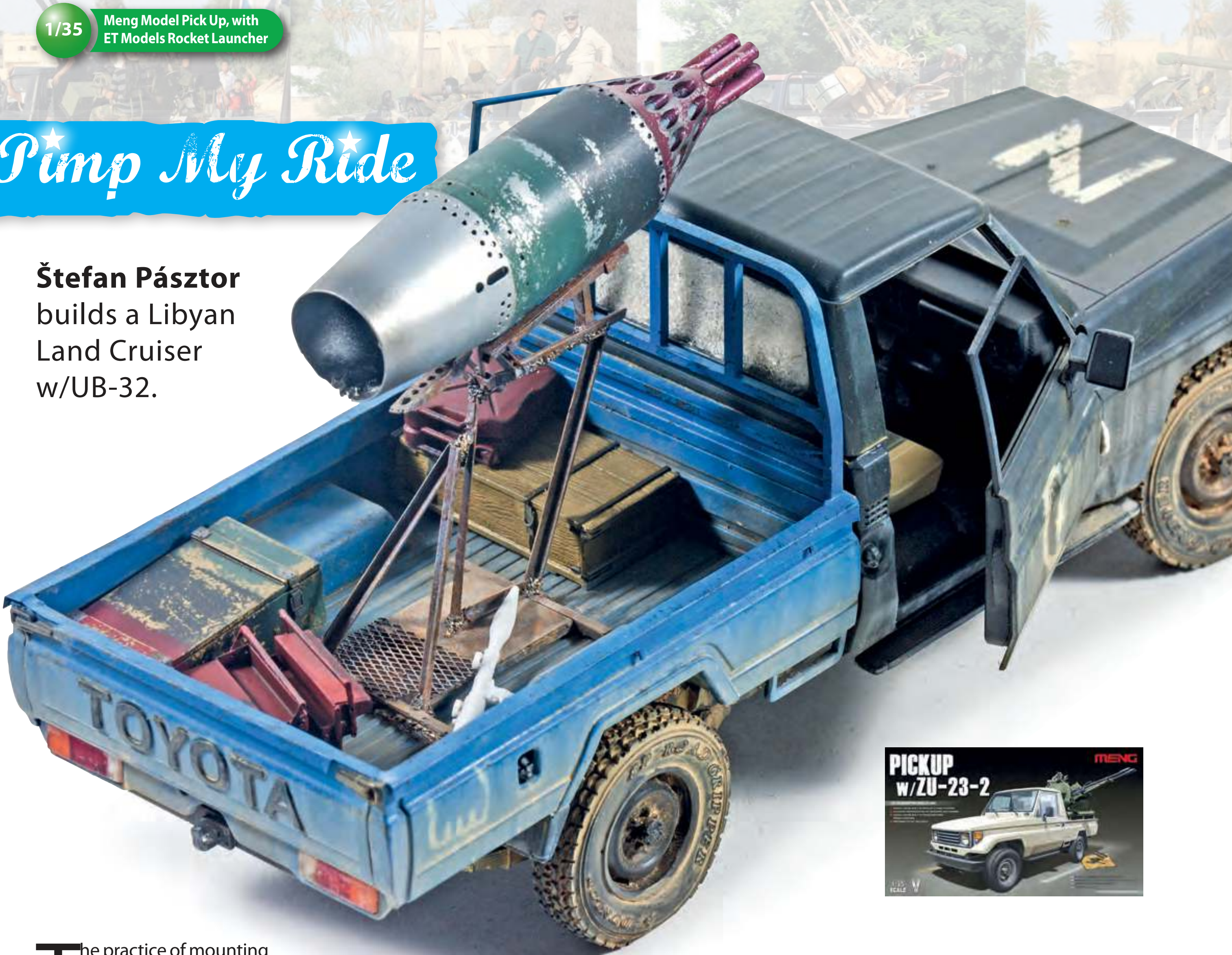

The practice of mounting guns on civilian trucks and SUVs to create 'Technicals', is a feature of modern warfare, especially in the Middle East. In the Lebanon, Libya, Iraq and Syria, the 'Technicals' are in the armouries of government forces and insurgents alike. In October 2015 we had a special issue of MMI dedicated to modelling these 'Technicals' and Lebanese author Samer Kassis presented a photo essay of these colourful and sometimes 'Mad Max'-like vehicles in the recent conflict in Libya. **Meng Model's Toyota Hi-Lux** *(ref. VS-001)* is a great kit, released in 2011, and has spawned a number of conversions and details sets. **ET Models' 'Rocket Launcher'** is one of these and is an excellent addition to the base kit.

Treating the construction as a series of sub-assemblies, I began with the kit-supplied parts, and added the various Aftermarket items later. I find this to be the best approach, as it allows me to paint and weather certain areas before finally fitting everything together. While this is my preferred method, the basic kit could easily be built from the box in no more than a couple of sessions. Thanks to the excellent parts-fit, a minimal amount of filler was required.

Much of my time was spent assembling the rocket launcher mount. I have to commend the designers at ET Model; the quality of the resin and photoetched parts is first class. In addition to the rocket launcher and mount, the set includes various details for the vehicle (Toyota logo and badge,

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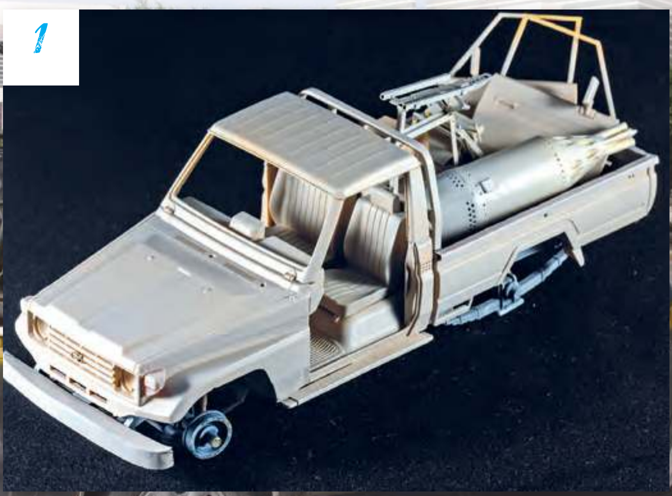

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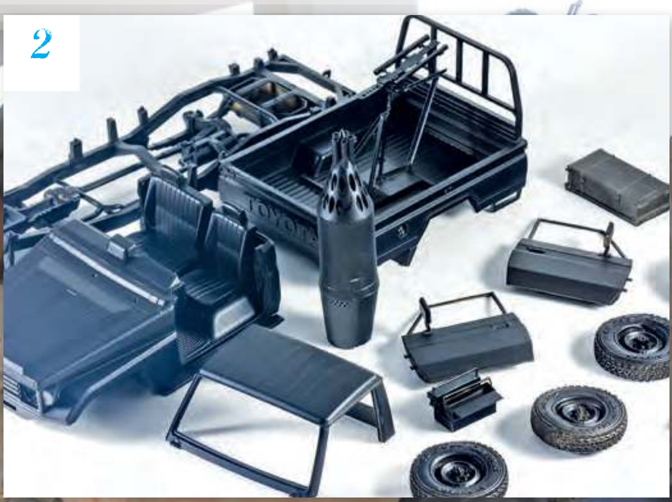


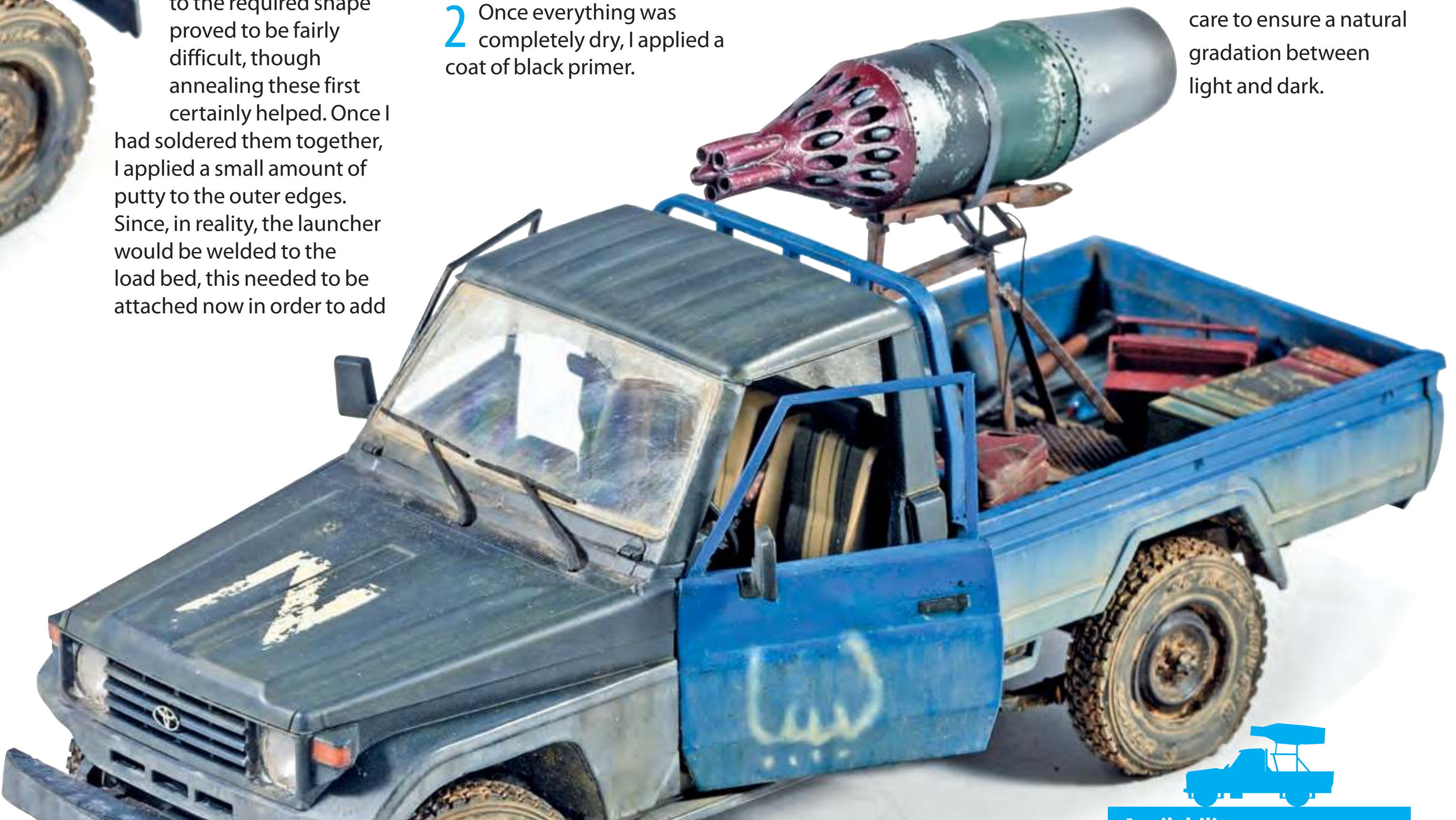
hooks, clips and other useful items). Bending the photoetched brass launcher components to the required shape proved to be fairly difficult, though annealing these first certainly helped. Once I had soldered them together, I applied a small amount of putty to the outer edges. Since, in reality, the launcher would be welded to the load bed, this needed to be attached now in order to add weld beads before painting.

1 With the basic construction complete, I treated the model to a coat of Mr. Surfacer.

2 Once everything was completely dry, I applied a coat of black primer.

3 Areas of the vehicle that would be black were now painted with APa 201/35 (German Tank Grey).

4 Employing the currently popular 'B&W' technique, I identified those parts that would be highlighted, taking care to ensure a natural gradation between light and dark.



Availability

Meng Model 1/35 Pick Up w/ZPU-1 *(ref. VS-001)* and **E.T. Model Modern Pick Up Rocket Launcher** *(ref. E35-154)*. See www.etmodeller.com.

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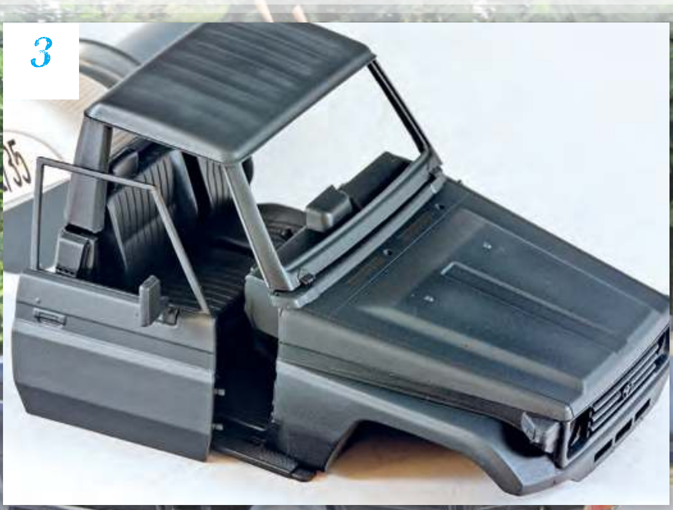

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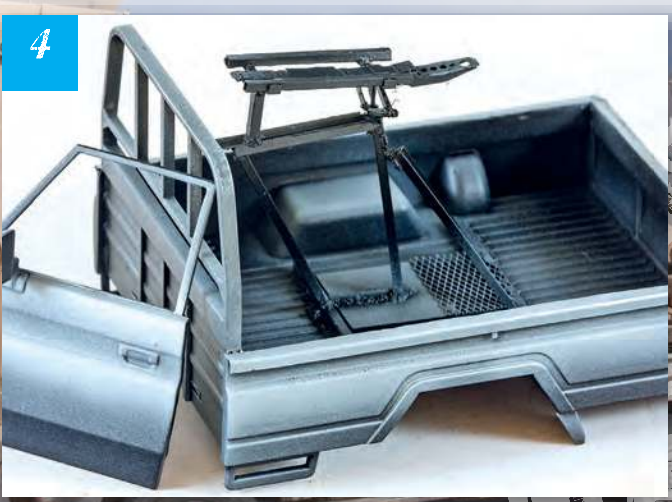


5 With the blue applied in a series of light coats, the previous effect was quite evident.

6 The sub-assemblies in their base colours.

7 I gave the rocket launcher an overall coat of AMMO's A.MIG-8201 (Aluminium ALC101), and then applied Alclad 2's ALC-111 (Magnesium) to the front and rear portions to give the impression of blast scorching.

8 With the launch mount painted dark brown, I was ready to apply several coats of Tamiya's Semi-Matt Varnish to the model.

9 Having allowed the varnish to fully dry, I applied a couple of coats of Chipping Fluid to areas where I planned to add other colours (launcher, cab doors, bonnet and storage box). Satisfied with the outcome, I gave these areas a further coat of semi-matt varnish.

10 The weathering process began with a series of dark washes, any excess being removed with a moist cotton bud. Now using MIG's Chipping Color, I replicated surface scratches around the vehicle. I was careful not to overstate this effect, as the vehicle in my reference photos appeared to have suffered only minor damage to the paintwork.

11 Using the 'oil dot' technique, I faded the paintwork in appropriate areas. For those who are unfamiliar with this method, it simply involves the application of small spots of oil colour, and then blending them into the surface using a wide brush moistened with thinner.

12 Allowing the oils 48 hours to fully cure, I repeated the process (this time with just white), focusing on areas that would be most exposed to prolonged sunlight (upper and side panels).

13 Time now to add a series of filters: first, A.MIG-1510 (Tan for 3-Tone Camo), applied to the vehicle, but omitting the rocket launcher …

14 ... then a blue filter, made from diluted Tamiya Enamel – XF-8 (Flat Blue).

15 To recreate the corroded metal on the launch mount I applied a coat of A.MIG-1002 (Track Wash). While this was still wet, I stippled Light Rust pigment over the surface, followed by XF-18 (Medium Blue), and finally, XF-53 (Neutral Grey).

16 A metallic paint was applied to the weld seams around the launch mount, and followed by touches of Light Rust Wash.

17 The next step involved replicating the cab's shattered rear window. Using a microscope slide, I broke this into tiny pieces, and coated it with dispersive puzzle glue (deliberately chosen, as it would remain flexible, once dry). With the rear window and windscreen in place, I was ready to apply pigments to the model.

18 Beginning with the chassis and underside, I applied various dry pigments (from MIG and Síra Hobby) and secured these with Pigment Fixer. The process was carried out in several stages, each layer being fixed before moving on to the next. Once I was satisfied with the effect, I added 'mud splashes' (this time using wet pigments), and finished with further dry applications to vary the texture.

19 To recreate the dusty surfaces around the vehicle, I applied a light misting of diluted XF-57 (Buff), and washed this in a downwards motion using a flat brush moistened with X-20A (Acrylic Thinner).

20 Once the thinner had completely dried, I returned to these areas with A.MIG-1401 (Light Dust) from AMMO's 'Nature Effects' range.

5

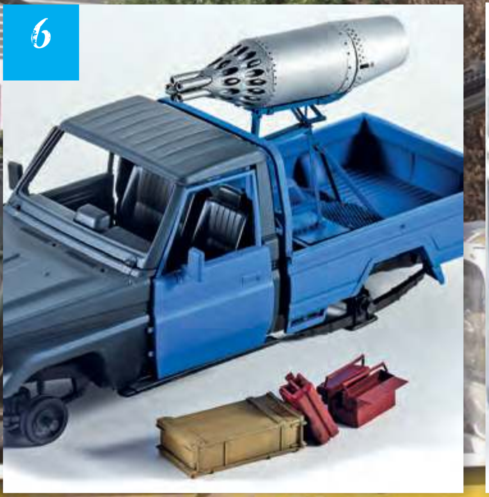
9

CHIPPIN
fluid
mig

13

17

6



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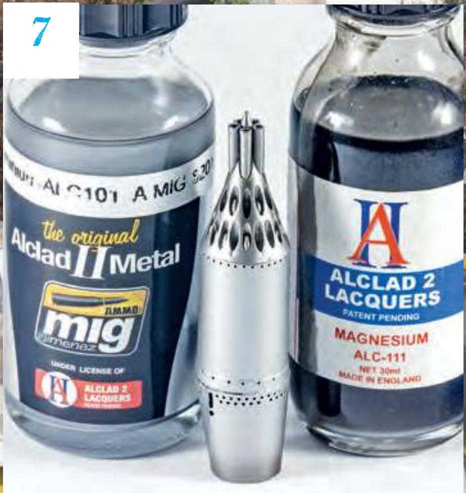
ALC101 A.MIG
the original Alclad II Metal
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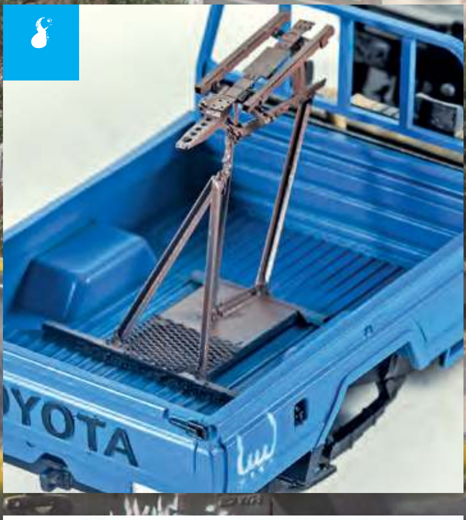

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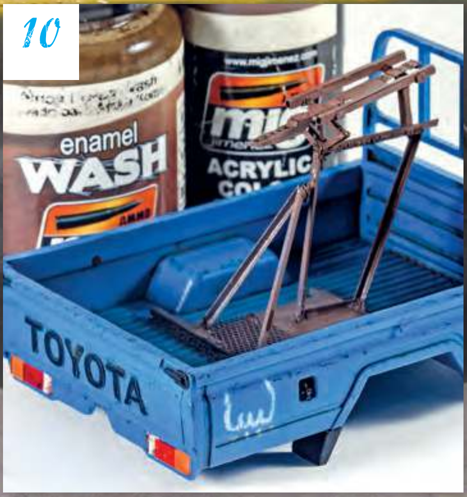
enamel WASH
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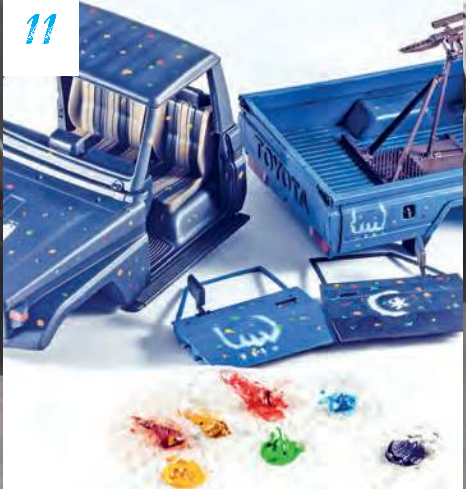

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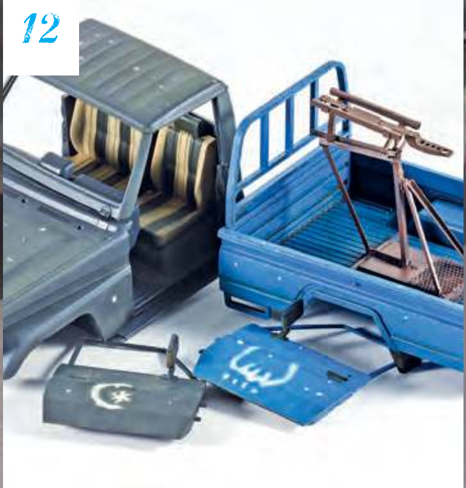

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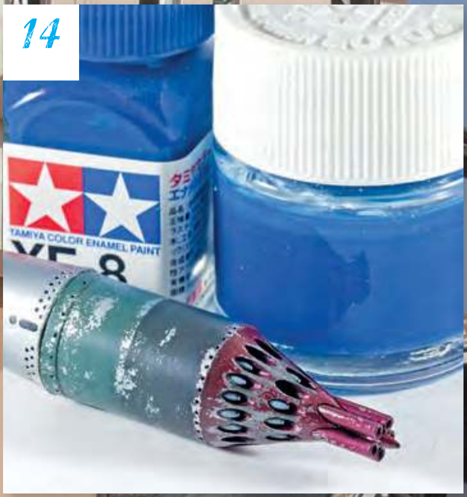
TAMIYA COLOR ENAMEL PAINT
XF-8

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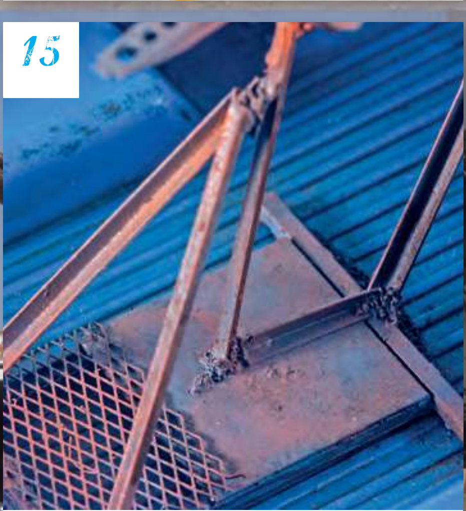

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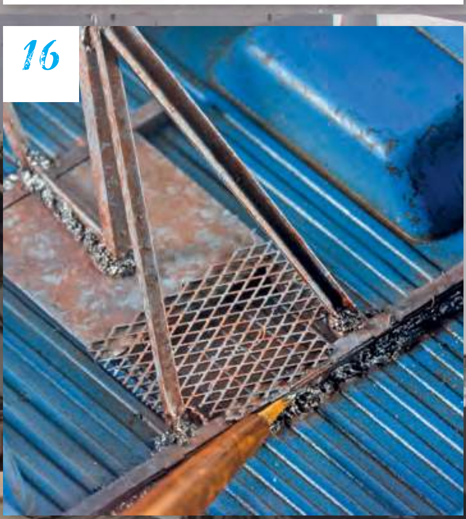

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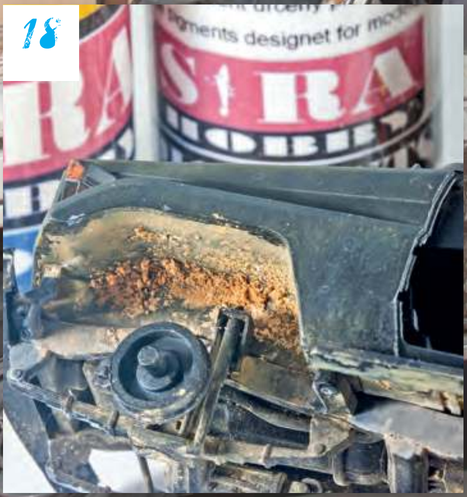
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SIRA HOBBY

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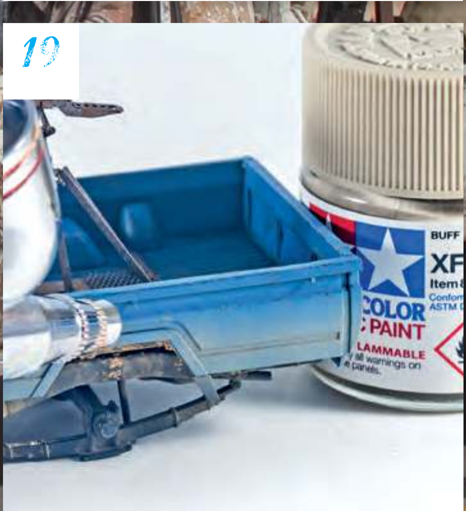
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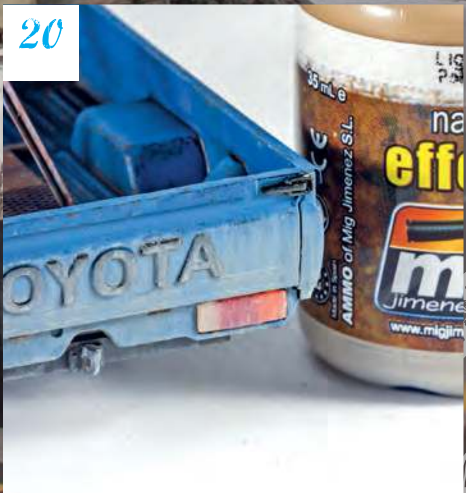
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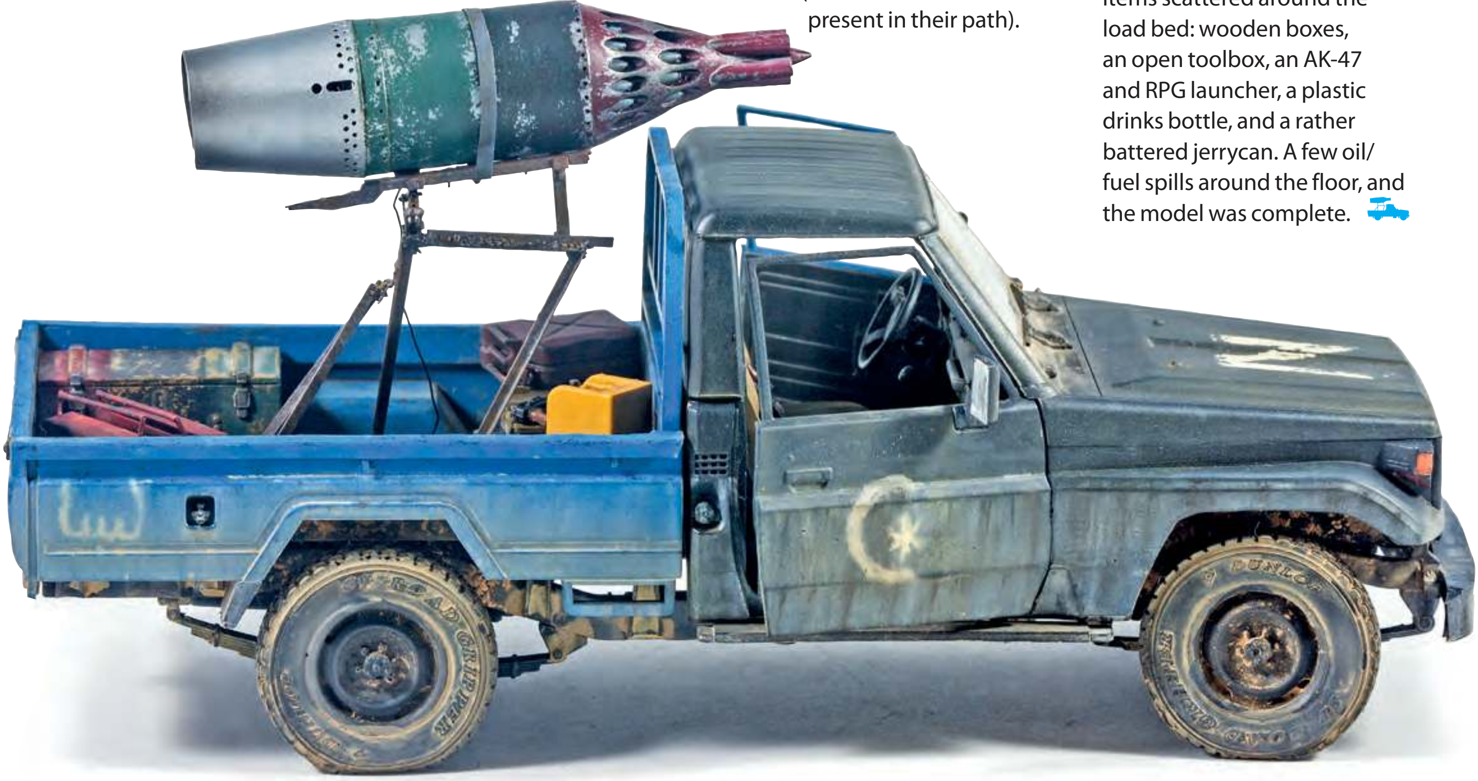
AMMO of Mig Jimenez S.L.
effe
mig jimenez

21 After a while, I wiped the areas with a moist cotton bud, and applied dry pigments to give the impression of accumulated dust, where appropriate.

22 With further pigments applied to the cab interior and the load bed, I was finally ready to fit most of the sub-assemblies together.

23 Home-made masks were cut, and applied to the windscreen, and pigments (wet and dry) were brushed over the exposed area. With the masks removed, I had the perfect impression of a grimy windscreen with the characteristic 'wiper-blade arcs' (with traces of dirt still present in their path).

24 Before attaching the cab doors, I added seat-belts (made from aluminium foil, with plastic clasps), and fixed the rocket launcher in place. All that remained was to experiment with the positioning of the items scattered around the load bed: wooden boxes, an open toolbox, an AK-47 and RPG launcher, a plastic drinks bottle, and a rather battered jerrycan. A few oil/fuel spills around the floor, and the model was complete.



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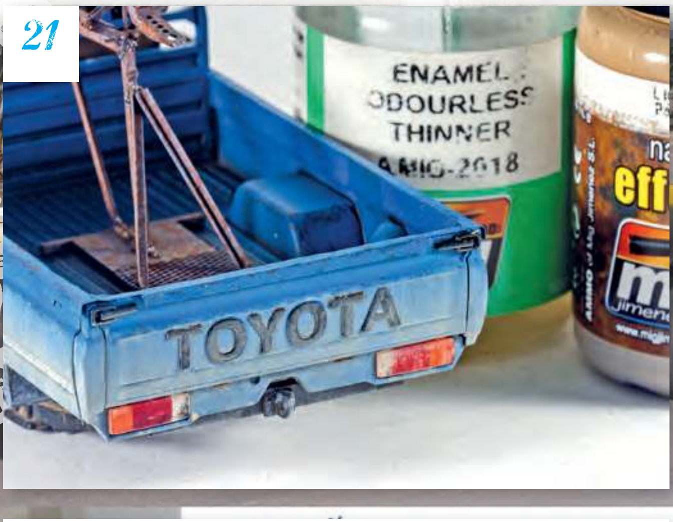

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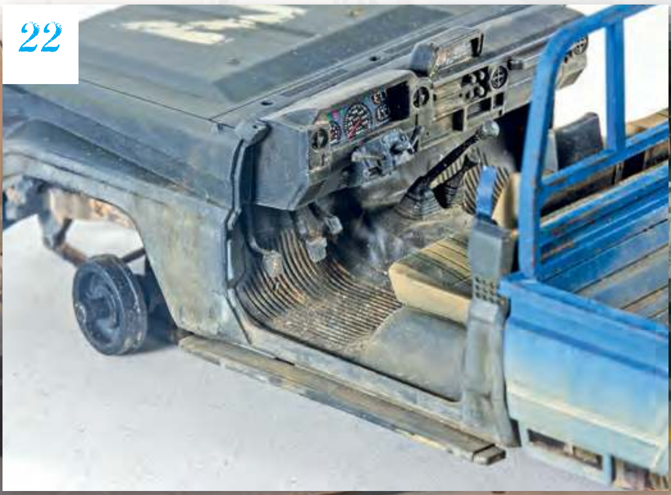

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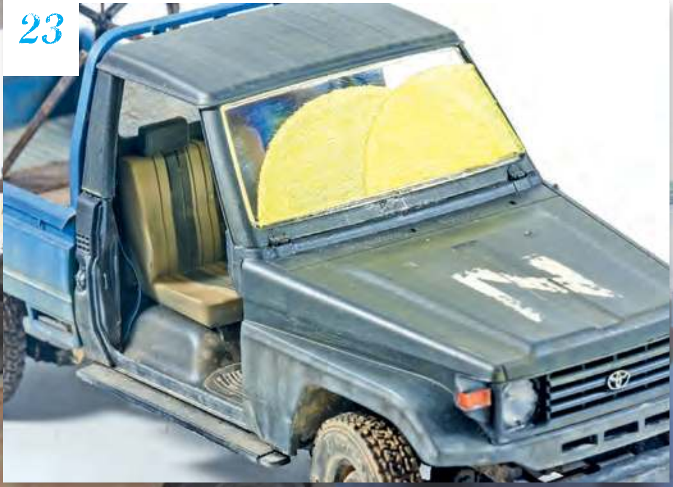

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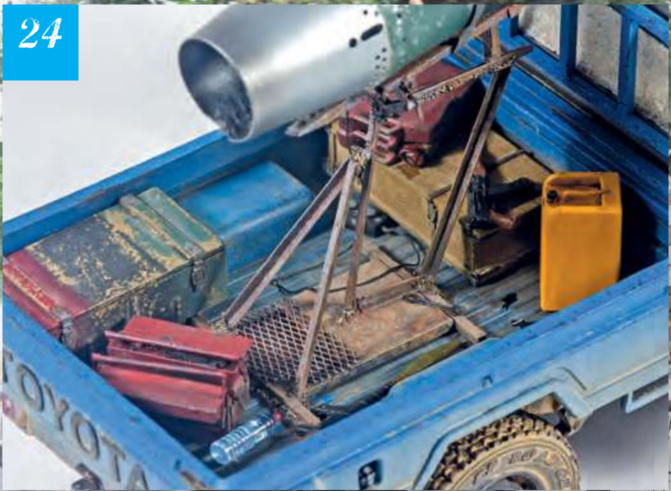

BITS KRIEG

Both sets can be used for models from Academy, ESCI/ERTL, Dragon, Italeri, Tamiya.

Sets contain 2 drills for adapting the holes of the wheels to mentioned above manufacturers' kits.

FEATURES LIST:
- corrected shape of the steel wheel by adding the grooves inside the rims
- corrected depth of the steel wheel (please note how shallow are the ones in plastic kits and how deep are the wheels actually on pictures of real tank)
- corrected shape and size of the bolts
- added optional „stripe" in the middle of wheel's rubber bandage to imitate the residue of rubber from vulcanization process, which can be easily sanded off if not required.
- corrected height and width of the middle hub of the wheel
- added the grease nipples on the middle hub cap
- added markings on the rubbers

BK-060 U.S. M60 / M48 Wheels + Spare, Steel rim type (All manufacturers). QuickWheel mask included.

BK-061 U.S. M60 / M48 Wheels + Spare, Aluminium „Spider" rim type (All manufacturers). QuickWheel mask included.

www.quickwheelstore.com

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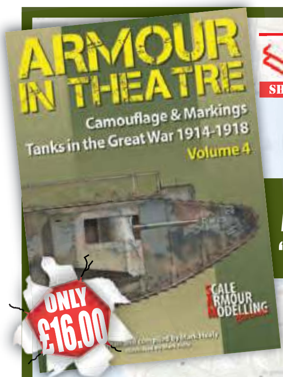

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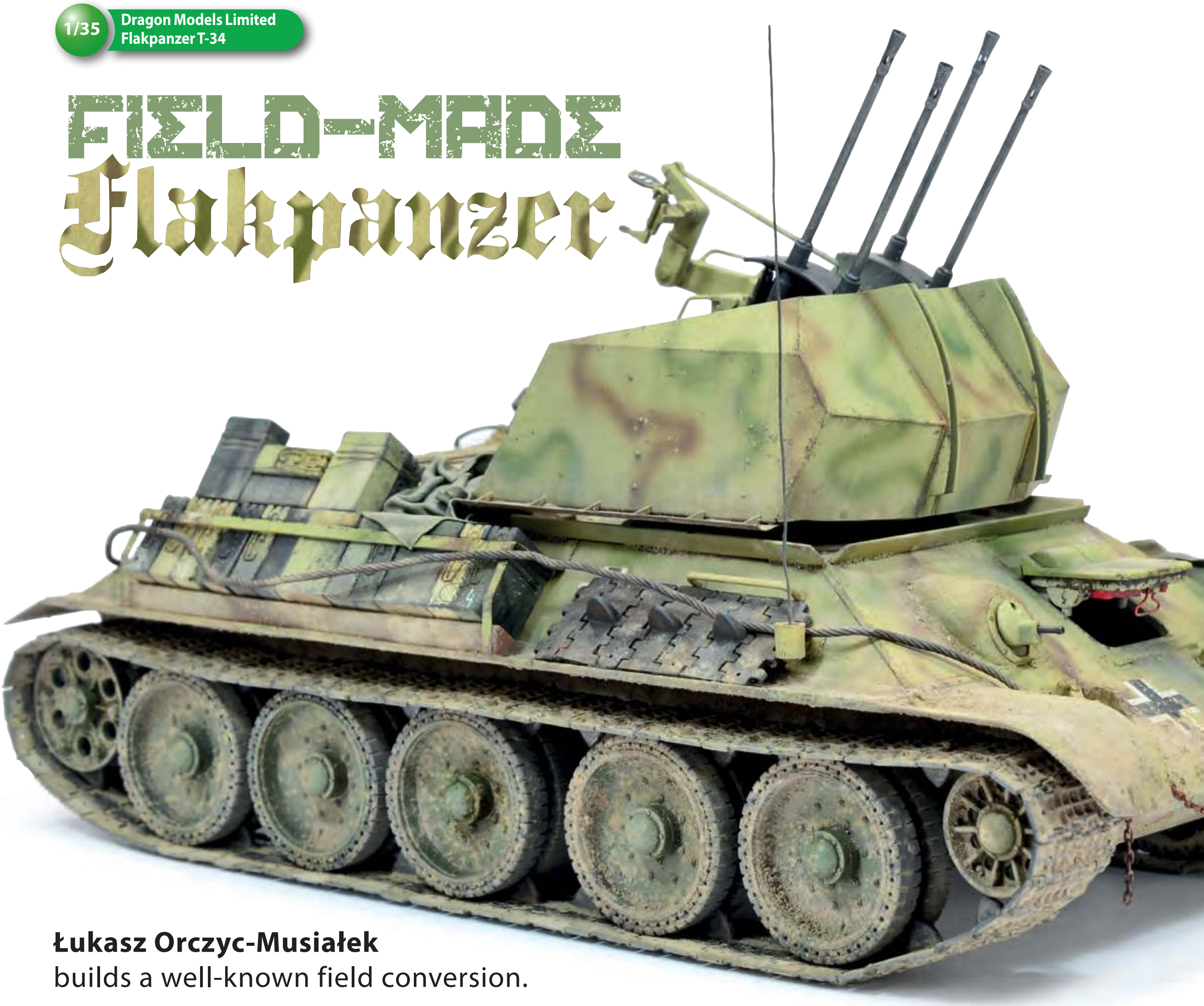
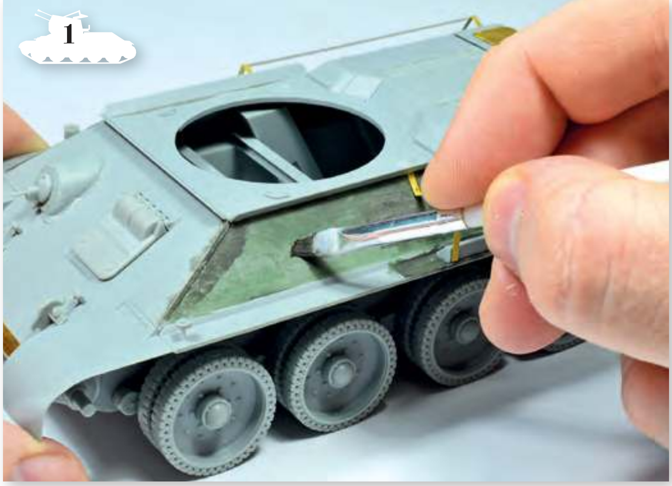
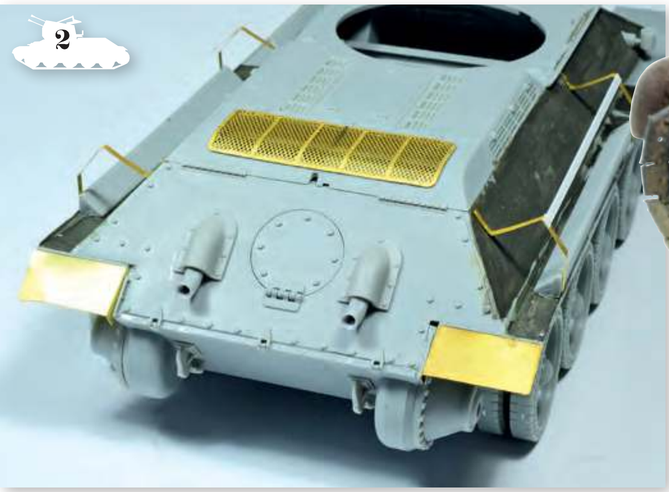
FIELD-MADE Flakpanzer



Łukasz Orczyc-Musiałek
builds a well-known field conversion.

One of the most recognizable vehicles of World War II, produced in tens of thousands, was the Red Army's T-34 tank. It was the basis for dozens of different modifications and field improvements. The German army captured and put to good use hundreds of T-34s during the war on the Eastern Front, both as gun tanks and as field-made conversions, including *Flakpanzer* or armoured self-propelled anti-aircraft guns. **Dragon** have kitted one such vehicle, a **Flakpanzer T-34** that served with 653 schwere Panzerjäger Abteilung, one of two units that fielded the *Ferdinand* and later *Elefant* SPG. The T-34 was modified with an armoured turret housing a 2cm *Flakvierling* 38. I found a few photographs of this vehicles on the Internet. Two of them are described as showing the conversion of the T-34 into a *Flakpanzer* by soldiers of the battalion's field workshop. One shows the tank after the addition of the Flak turret but without the ammunition racks on the sides. Another, taken from rear, is overexposed so the





details of the rear part of the vehicle are impossible to verify. The best know are two images showing the vehicle in action with and without crew. They are very easy to find them on the website, www.beutepanzer.ru

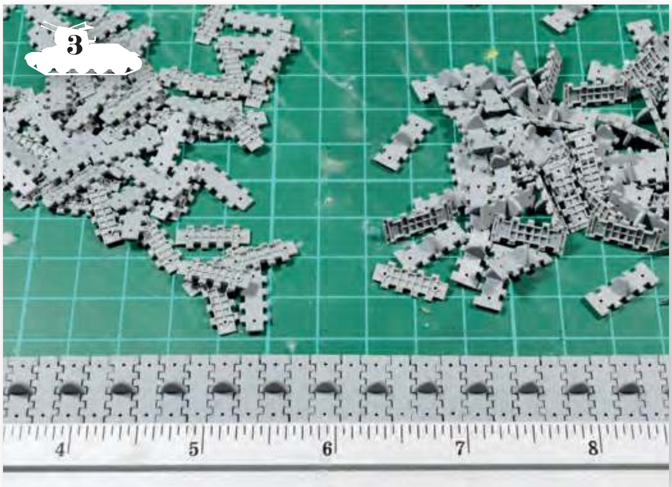
After carefully analyzing the photos, it was clear that the tank was probably abandoned but not destroyed or badly damaged. The fenders were in place with no battle damage, as was the hull. The question is what happened to the original turret? Was it just thrown away as the Flak was needed by the unit more than a gun tank? Or maybe it was originally an ammunition carrier or field ambulance? Who knows? From the reference images it looks like a standard German camouflage scheme of dark yellow base with some red brown and olive green patches were applied. The *Balkenkreuz* national marking was also visible in one of the photos I mentioned above.

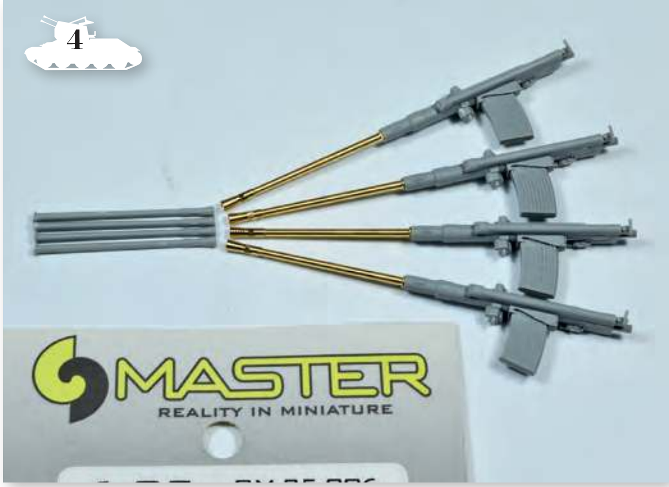
1 The sides of the upper hull were sanded smooth and a new surfaces prepared. I used Tamiya putty mixed with thinner to restore the texture.

2 The photoetched parts provided by Dragon: it was hard to bend the mudguards but after some heating it is possible and much easier.

3 To ensure the tracks were aligned properly I used a metal ruler and Tamiya's Extra Thin Cement.

4 The kit's gun barrels were replaced with metal ones which were more accurate.

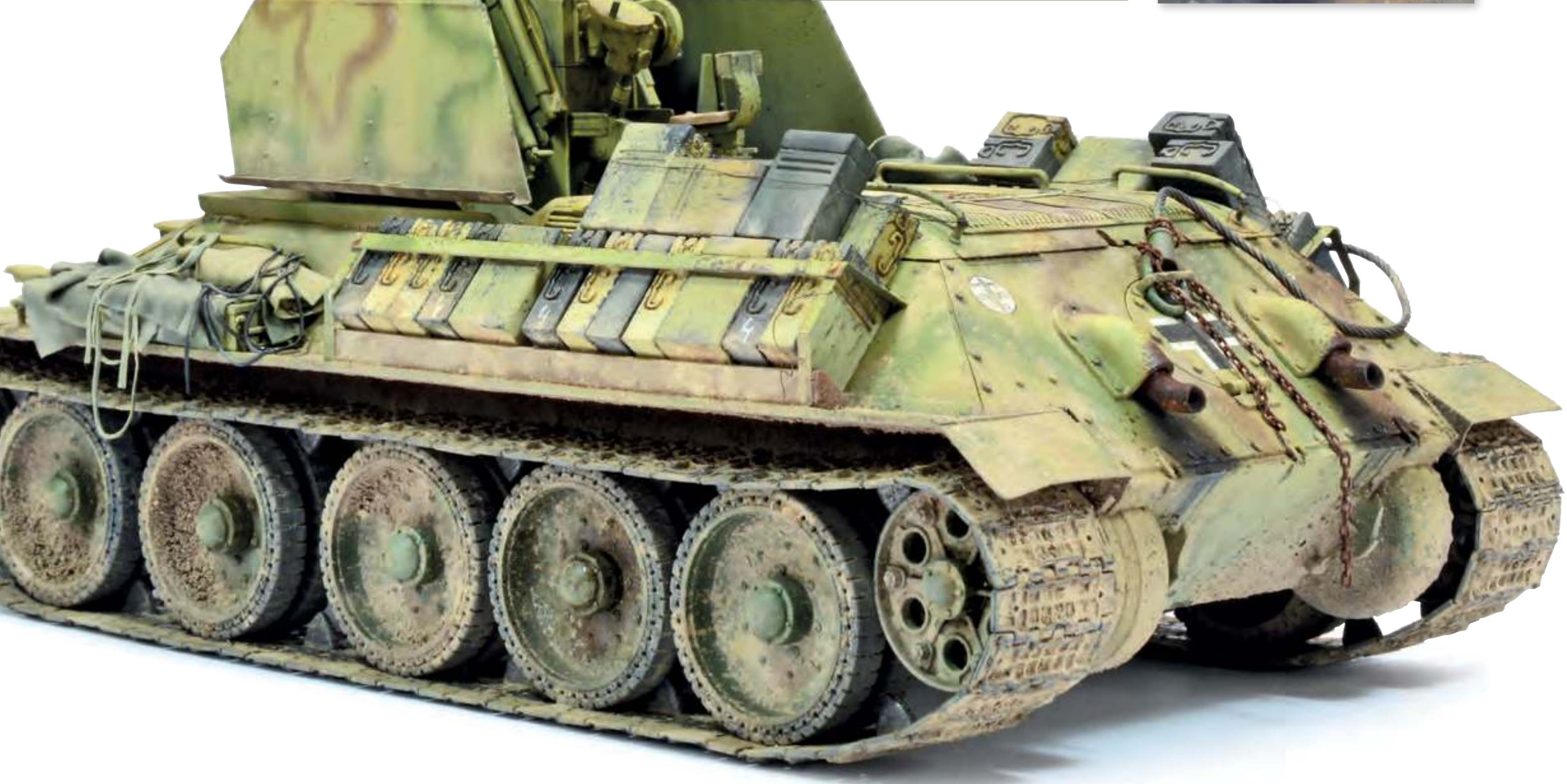




Availability

Dragon Models Limited 1/35 Flakpanzer T-34 *(ref. 6599)* is available from all good model shops.

Flakpanzer T-34
DRAGON



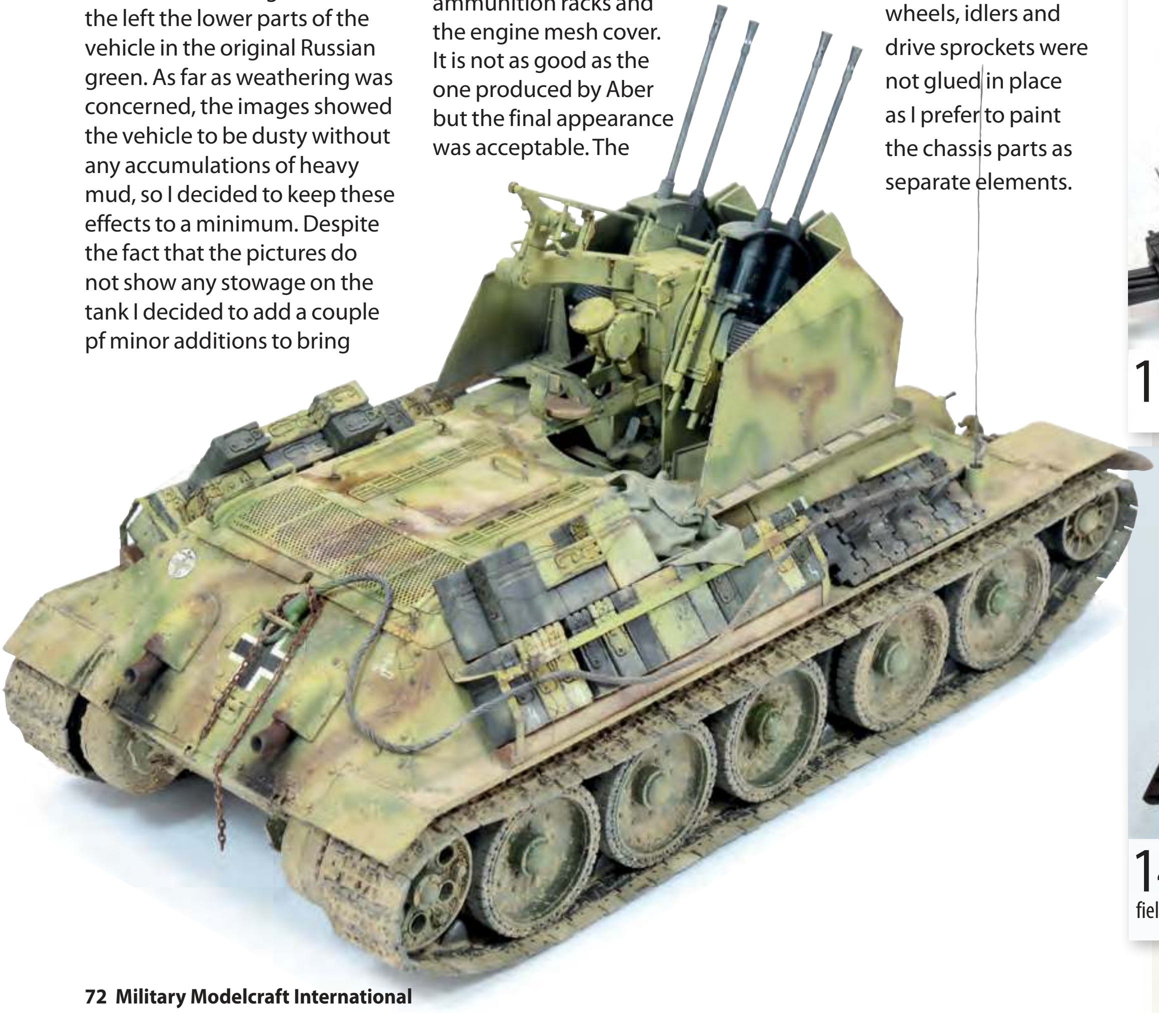
The Build

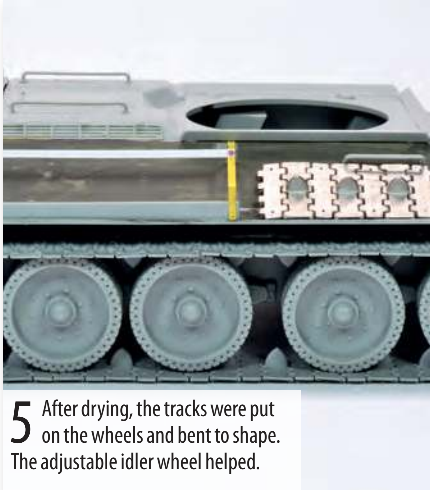
With all this in mind I started to plan the the project. **Dragon's** 2016 kit is excellent and is basically a **reboxing o**f the 'boutique' **Cyber Hobby** kit released seven year earlier. I knew it the kit would be built almost straight from the box and I decided only to replace the **gun barrels** for the high quality **Master Model** set. The metal barrels are provided as two parts: the barrel and separate flash suppressor. They are precisely machined and look much better than the plastic ones and are, in my opinion, the best metal barrels on the market. The **metal towing cable** was other Aftermarket addition to enhance the kit's final appearance. The rest was built from the contents of the box. Just a quick note: the ammunition boxes which were carried on the hull sides need to be replaced or copied as only four are included in the kit. This isn't enough to fill the racks so the easiest option is to make some resin copies. I also prepared a couple tarps to add them on the vehicle.

In regard to painting, I decided to follow the evidence of the archival images, but the left the lower parts of the vehicle in the original Russian green. As far as weathering was concerned, the images showed the vehicle to be dusty without any accumulations of heavy mud, so I decided to keep these effects to a minimum. Despite the fact that the pictures do not show any stowage on the tank I decided to add a couple pf minor additions to bring more life to the model. I also ordered the figure of the tanker in a one-piece suit which I painted as the driver. With that sorted it was time to begin!

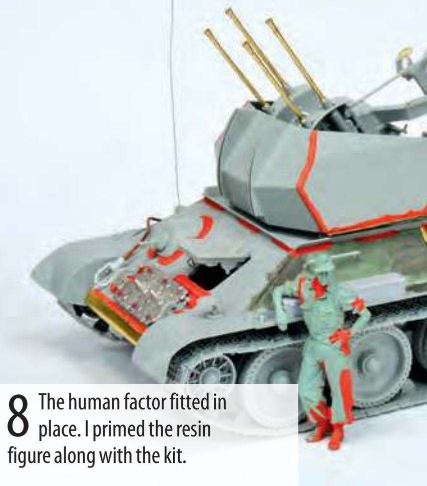
The first thing I did was to check what parts should be removed. So all additional fuel tanks were removed, as were much of the detail on the sides of the hull and on the fenders. I replaced the **left fender's stowage box** for the excellent one from **Bitskrieg**. I painted a coat of Tamiya putty diluted with thinner to check for surface for any damage and add a little texture. I used an old brush and mixed the putty in some used paint containers this is why it is green or black! The front fenders were bent a little with my fingers. It is always better to try damage the straight line of kit fenders as it imparts a little more life and character. The driver's hatch was left open and not glued at this stage for to facilitate handling during painting and weathering. Inside the hull two beams were installed as the base for the *Flakvierling* station. It is necessary to secure them in place before the upper hull is attached. I used the kit's photoetch fret to make the side ammunition racks and the engine mesh cover. It is not as good as the one produced by Aber but the final appearance was acceptable. The rear fenders also came from the kit's photoetched fret but were quite thick and difficult to bend. Construction of the main hull was straightforward and I had no problems in fitting all of the parts together. It was a pure pleasure and after just two evenings I had completed this stage.

Next I started to prepare the chassis and the main task here was assembling the tracks. They were glued together with Tamiya's Extra Thin glue, aligning them against a metal ruler while I assembled them. They were left to dry in flat position for about an hour. Waiting for tracks to dry, I used my time to replace the gun barrels in the *Flakvierling*. It was easy to cut the plastic barrels off and drill 1mm holes to place each metal barrel in place. With that done I took the tracks and started to place them around the wheels, aiming for a natural-looking sag. This process was made easy because the idler wheel can be placed in different positions. The road wheels, idlers and drive sprockets were not glued in place as I prefer to paint the chassis parts as separate elements.





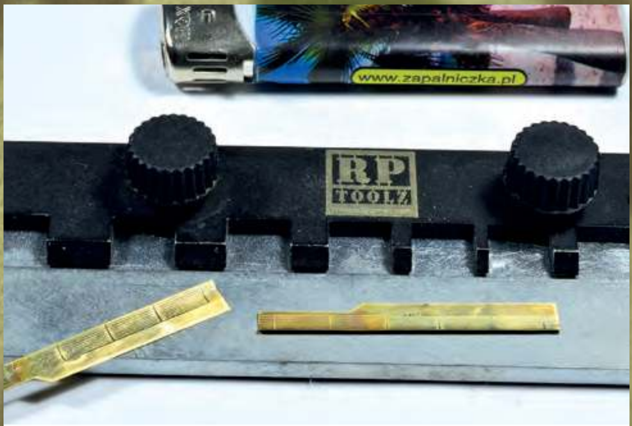
5 After drying, the tracks were put on the wheels and bent to shape. The adjustable idler wheel helped.



8 The human factor fitted in place. I primed the resin figure along with the kit.

11 Games Workshop's Chaos Black provides a tough, satin finish.

14 Inside the 'turret' I used two shades to replica the field workshop's hasty painting.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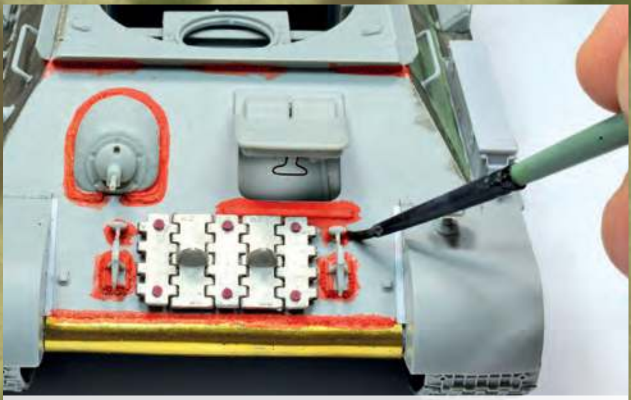
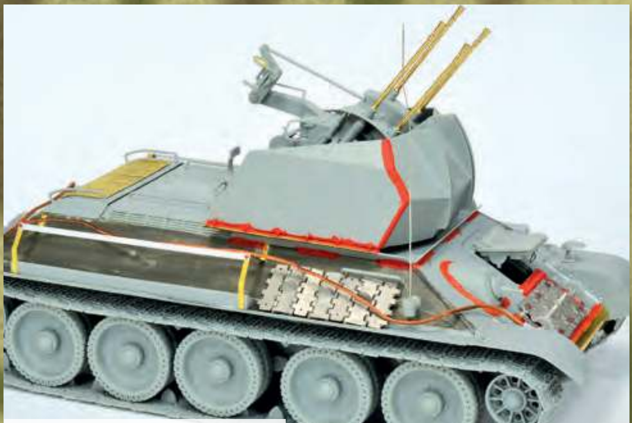
RP
TOOLZ

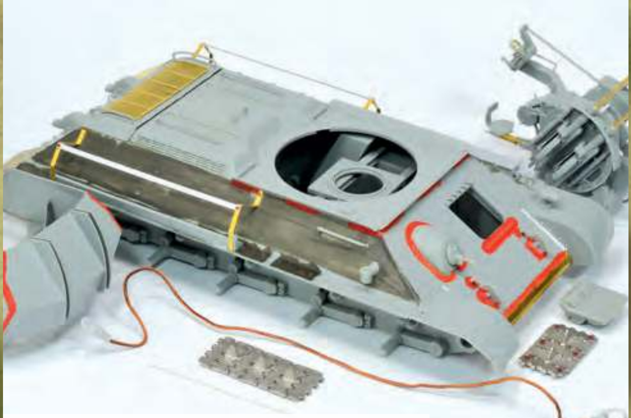
6 For the metal elements of the Flak 'turret' I used a folding tool as Dragon's parts are really hard to bend. I gently annealed them with heat before beginning.



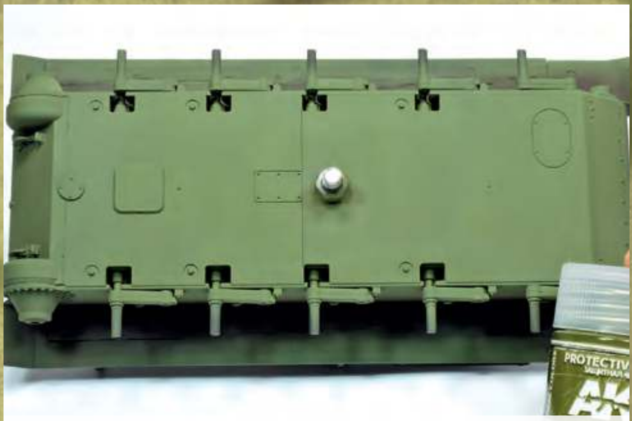
7 I made some additional weld seams and reworked the existing ones, using Milliput. I painted it with red to check my work. Note the metal front beam made using copper sheet.



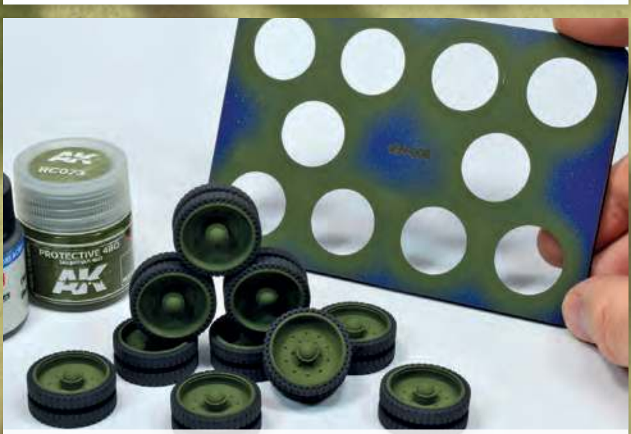
9 The right side of the kit, note the additional metal parts.



10 Breaking the assembled model down into sub-assemblies is an essential part of my approach.


PROTECTIVE
AK

12 I painted the lower areas of the kit in typical Russian green. For this I used AK Interactive 'Real Color' Protective 4BO.


AK
RC073
PROTECTIVE 4BO
AK

13 This was also used on the wheels. The rubber rims had been painted earlier with dark grey which was then masked to a perfect finish with a Quick Mask.

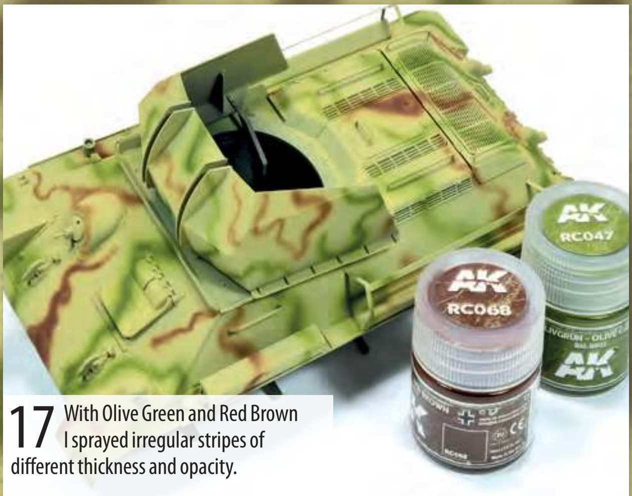
AK
RC074
DARK BROWN
AK

AK
DUNKELGRAU – DARK GRAY
RAL 7021
AK

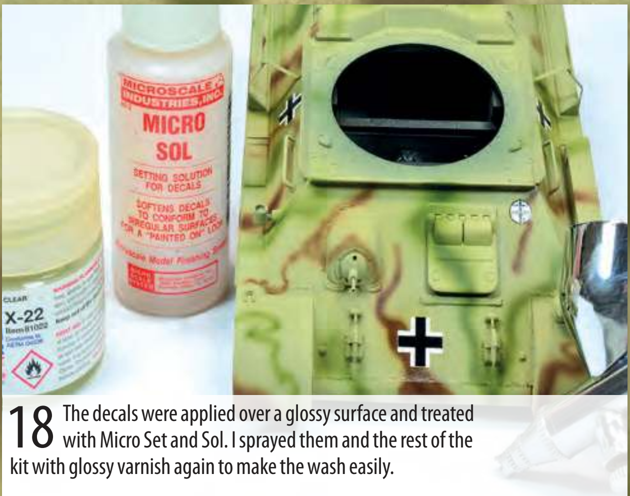
15 The Flakvierling section was first painted with Dark Grey. In the next stage it was partly covered with Dark Yellow.

AK
DARK YELLOW
RAL 7028
AK

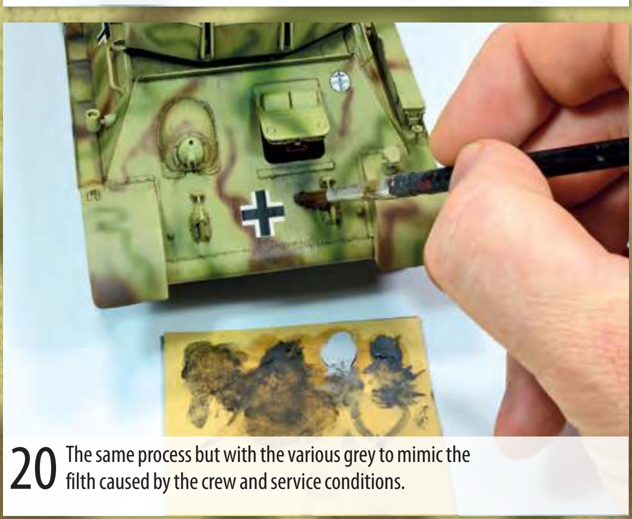
16 The base colour for the hull was German Dunkelgelb.



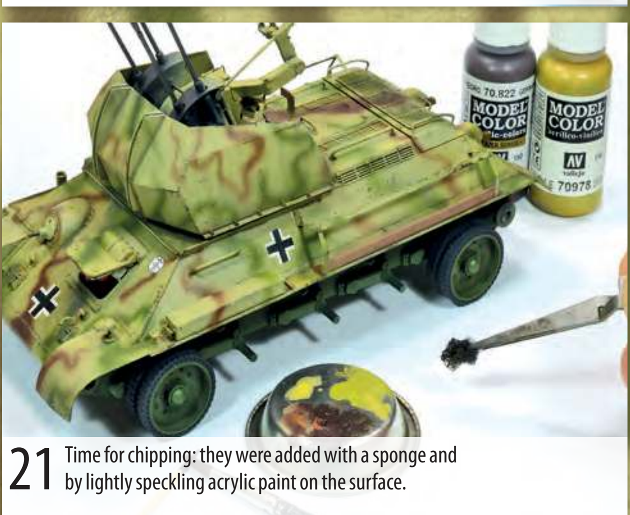
17 With Olive Green and Red Brown I sprayed irregular stripes of different thickness and opacity.



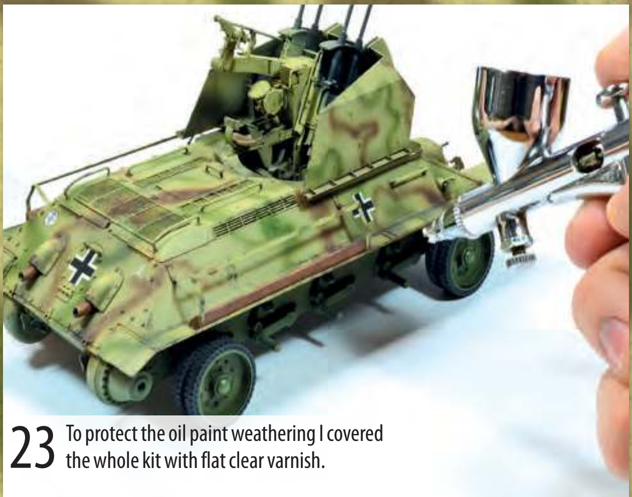
18 The decals were applied over a glossy surface and treated with Micro Set and Sol. I sprayed them and the rest of the kit with glossy varnish again to make the wash easily.



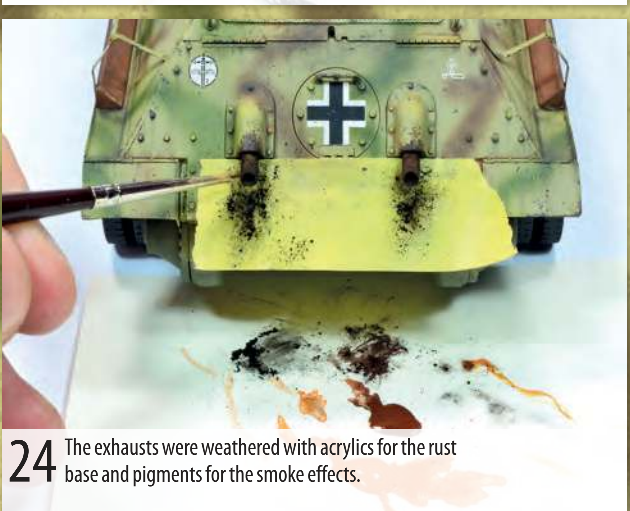
20 The same process but with the various grey to mimic the filth caused by the crew and service conditions.



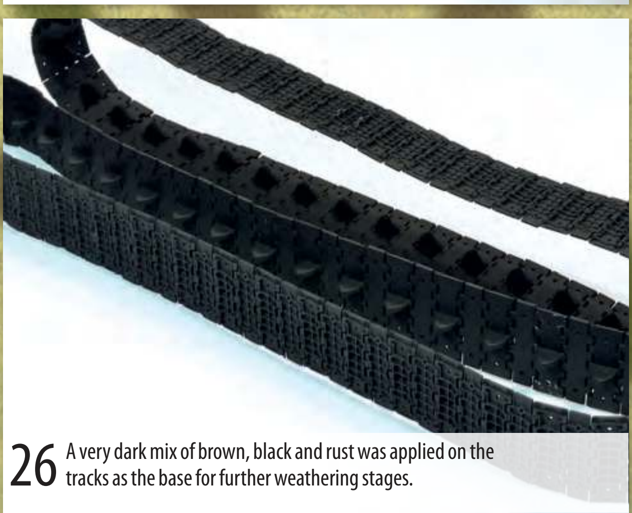
21 Time for chipping: they were added with a sponge and by lightly speckling acrylic paint on the surface.



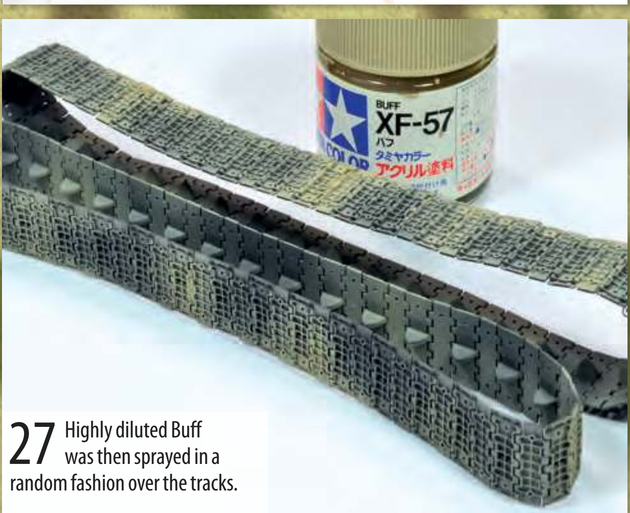
23 To protect the oil paint weathering I covered the whole kit with flat clear varnish.



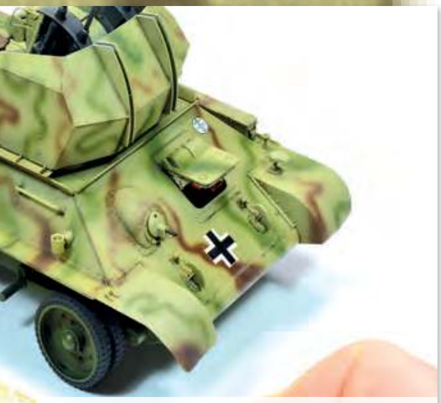
24 The exhausts were weathered with acrylics for the rust base and pigments for the smoke effects.



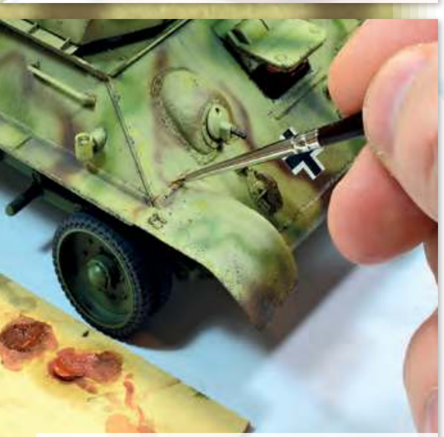
26 A very dark mix of brown, black and rust was applied on the tracks as the base for further weathering stages.



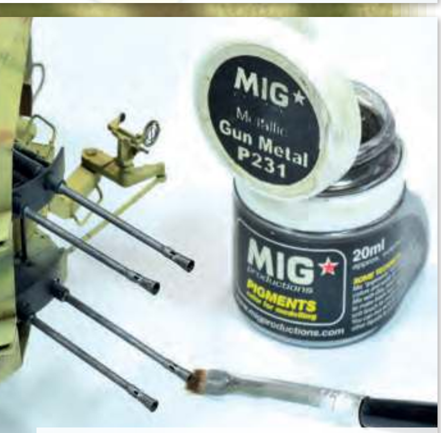
27 Highly diluted Buff was then sprayed in a random fashion over the tracks.



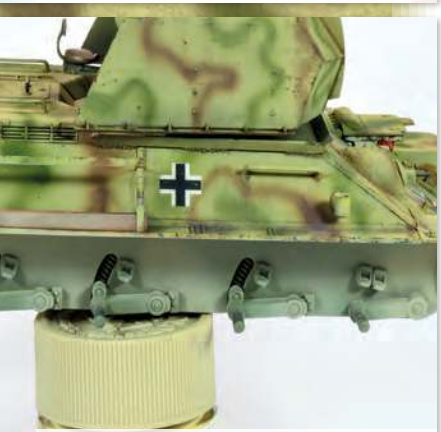
19 Now I started to make add tonal variety to the Dark Yellow surface, using oil paints and a couple drops of thinner.



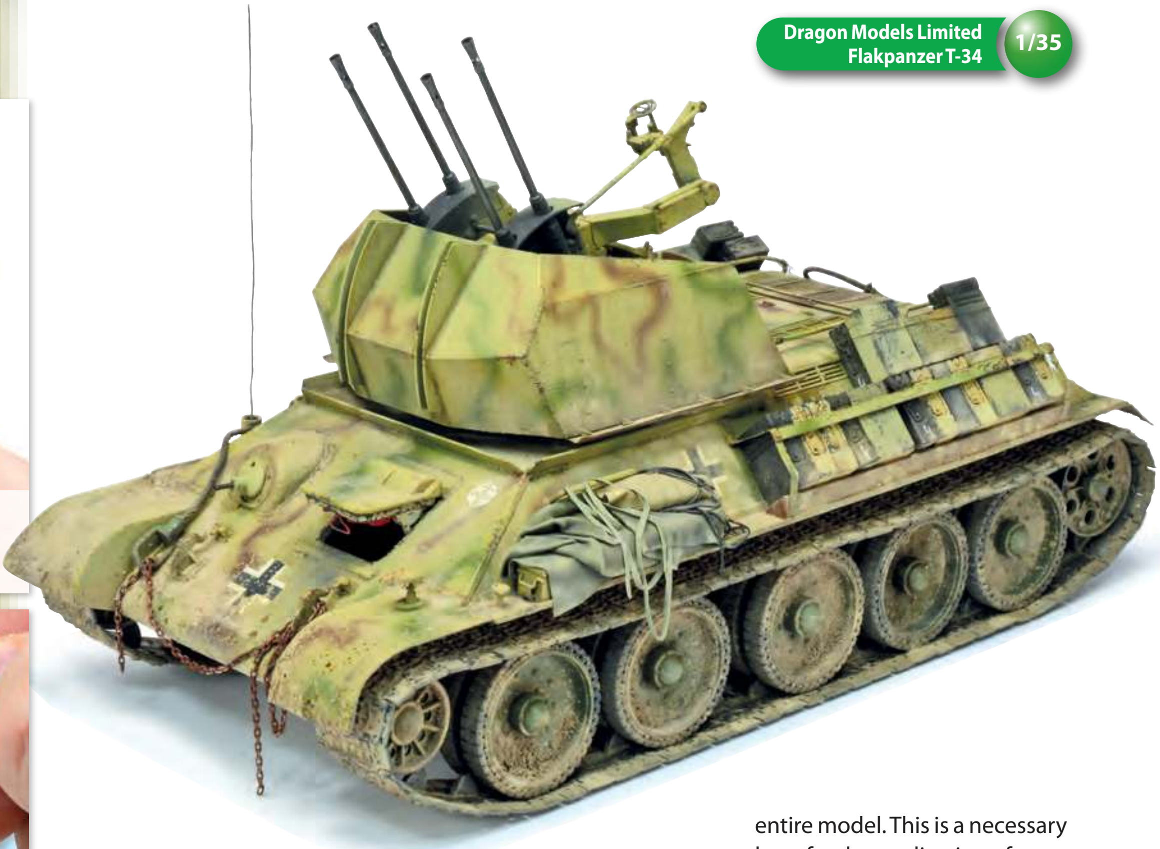
22 Here and there I add some rust-coloured oil paint being careful not to overdo the effect.



25 The gun barrels were polished with the gun metal pigment.



28 And the same colour was also applied on the lower parts of the hull.



Now I could start on the Flak turret. In my kit the base part was deformed a bit and I was left wondering about the correct shape. I tried to fix it by bending it in the opposite direction and the result looks fine. The side shields once in place kept the structure in its correct shape. On the bottom I added some photoetched parts, some kind of support I guess but its real use remains a mystery! With the Flakvierling barrels prepared previously, I started to build the Flak's main body following the instructions. At first it looks quite daunting but in fact the build is fast and the *Flakvierling* was soon complete. The only other work I did was to male some additional weld seams and remake some of the existing ones. For this task I used Milliput and painted it red to check the appearance of my work. Before painting I also prepared the **figure**. It was from **Stalingrad Miniatures** product and fitted perfectly.

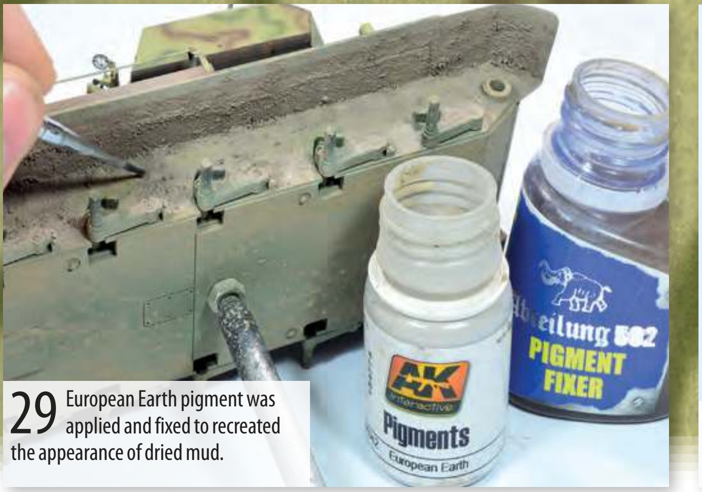
Painting and Weathering

To begin the painting process I broke the model down into sub-assemblies and applied my primer coat. The wheels were all placed on cocktail sticks, while I secured the hull to a wooden handle with a screw through the lower hull. Games Workshop's Chaos Black, my favourite and trustworthy primer, was applied all over the kit. A quick check for any flaws in my modelling work and it was time for paint. First, I covered the hull especially the lower parts with 4BO Protective Green from AK Interactive's new range acrylic 'Real Color'. Having the paint loaded in the airbrush I also sprayed the wheels. Using a 'Quick Wheels' mask I then applied a dark rubber colour to the tyres. Next I started to paint the Flakvierling's shield. For this I used AK's Black 6RP and Dark Brown 6K. They were applied in the internal part of the shield in a random fashion. The gun itself was painted with in Dark Grey, except for the gun barrels which were painted with in gunmetal.

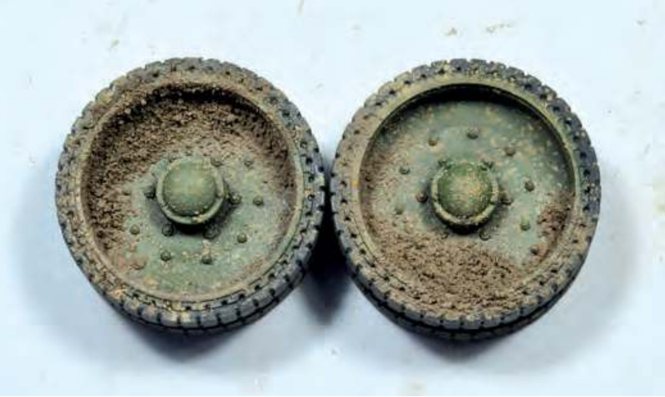
Now it was time to apply Dark Yellow over the entire upper hull, shield and the part of Flak (I wanted to show the that the field workshop had only sprayed the most accessible places). With Olive Green and Red Brown. I then sprayed irregular stripes with different thicknesses and opacity. At this stage I started to apply the decals over a gloss surface. I used unit insignia, Balkenkreuz and tactical markings from my own collection leaving the kt decals in my spares box. All were treated with Micro Set and Sol which helped to eliminate any 'silvering'. Once I was happy I hand painted the details, the machine gun, exhausts and elements of the driver's hatch, and then airbrushed some more gloss varnish over the entire model. This is a necessary base for the application of washes application, a mix of Dark Brown oil paint and white spirit. I applied it in a typical way, around the details and in the corners and removed any excess with a clean brush moistened with thinner.

I left the model to dry for a couple of hours and then started to add more tones using oil paints. Using different shades of yellow and white, I shifted the colour of some areas and details such as bolts to build more interest. In contrast to these light shades, I used various greys to prepare the filth and dirt. They were also used to make some streaks on the sides of the hull.

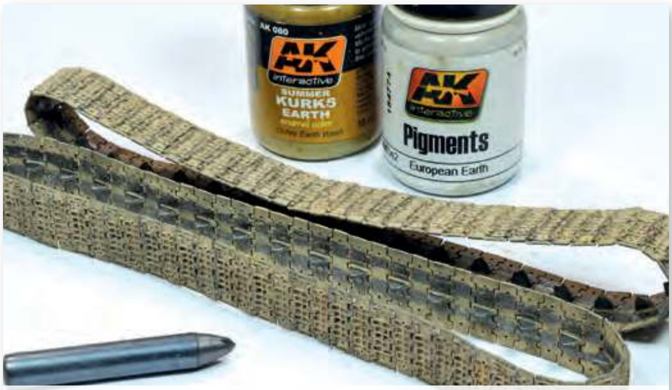
When the oils had dried I focused on the chips and scratches. Because the vehicle was quite new I decided to keep them to a minimum, only in the most exposed places. I applied all of the chips with a sponge. First, I applied Dark Yellow which I filled with deeper Dark Brown chips. I also picked out some really small bolts on the shield screens with the Dark Yellow. Next I added a very few signs of rust. The oil paint mix was applied in the corners and I was careful to avoid overdoing this effect on a vehicle with a relatively short service life. All of weathering work to this point was then saved with matt varnish.



29 European Earth pigment was applied and fixed to recreated the appearance of dried mud.



30 The wheels were treated with the same pigment mix. Note the layering of the soil created by the application of the pigment onto the wet Fixer.



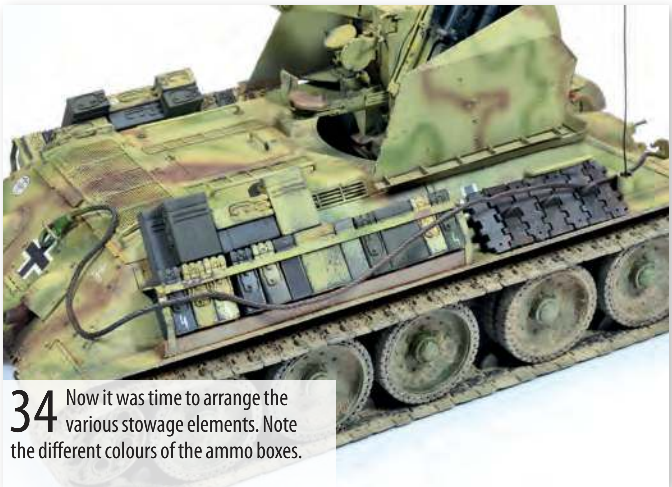
33 And the same was used on the edges of the tracks. The waffle-pattern track was carefully treated to a mix of Summer Kursk Earth and European Earth pigment and fixed carefully in place.

Next I began some special effects on the model. First, I added rust and heat staining to the exhausts. I applied light and dark brown oil paints using the 'wet-to-wet' method. While they were still wet, I added a couple of pinches of rust-coloured pigments. The diesel smoke effects on the exhausts were added with Tamiya Smoke and Black pigment. In the end (almost in the last step of weathering, when the pigments were applied and dried) I added the black-blue effect of the diesel smoke on the hull.

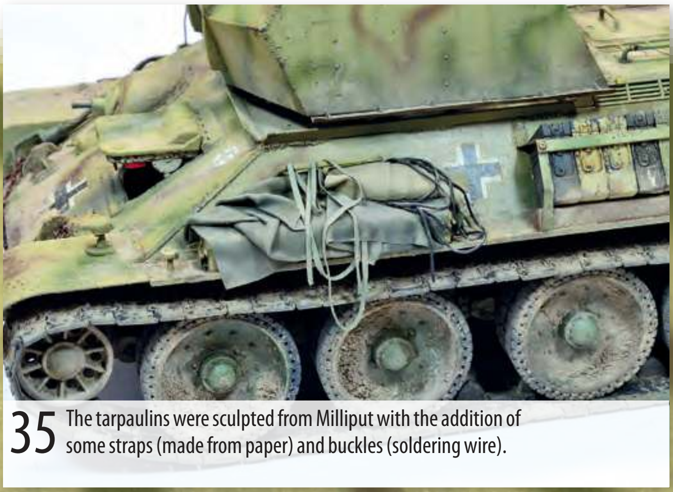
Finally, the gun barrels were polished with gun metal pigment. Their shine provides a nice contrast to the Dark Grey base of the Flak.

I sprayed the tracks with a very dark mix of brown, black and rust, which provided a base for further paint applications. I added highly diluted Buff but not over the entire length of the tracks but here and there with different accumulations of paint. The same mix was applied on the bottom of the hull and slightly up the sides. When it had dried I prepared some Mig European Earth pigment and Pigment Fixer and started to cover all of the previously dusted surfaces. In the corners more pigments were applied to build up layers of dust and soil. I was sparing with the Fixer and applied it in a very precise fashion to avoid any staining or tide marks. I also used pigments to build up different accumulations and appearance of mud on the running gear, this time without the Fixer. The drive sprocket and idler were polished with a soft pencil, as were the tracks to show where it had worn through to the bare metal. The final effect on the tracks was to add some more pigment into still wet 'Kursk Summer Earth' wash from AK Interactive in the 'waffle' pattern of the tracks, polishing the raised edges with pencil. I also added some mud to the fenders and oil and fuel stains to the engine deck.

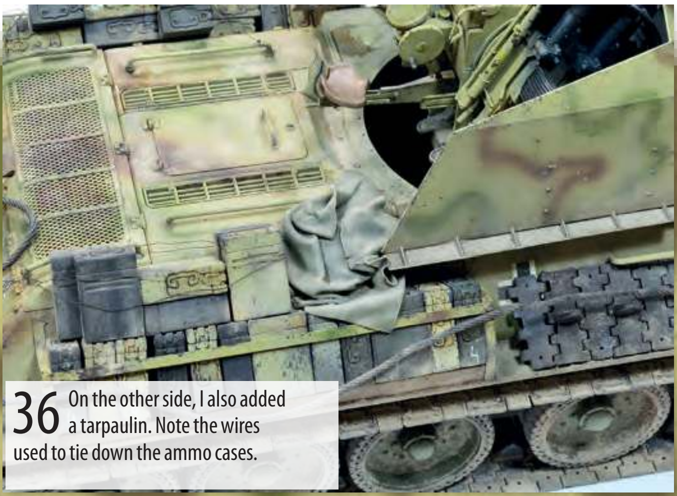
With the tracks done I turned my attention to the accessories. First, the most eye-catching items, the ammunition cases. These were painted in three different colours: dark



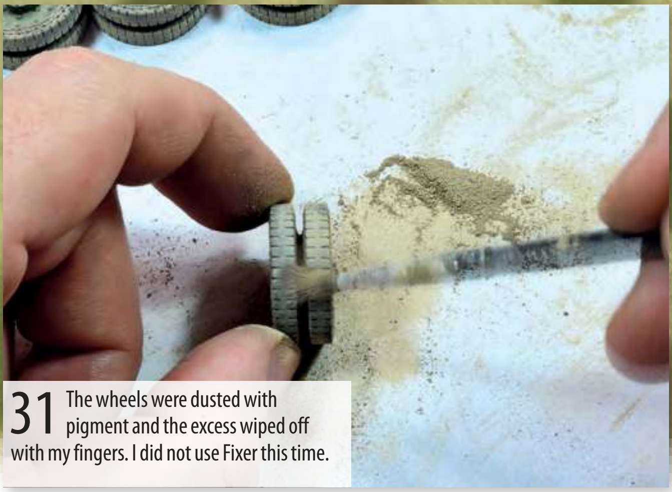
34 Now it was time to arrange the various stowage elements. Note the different colours of the ammo boxes.



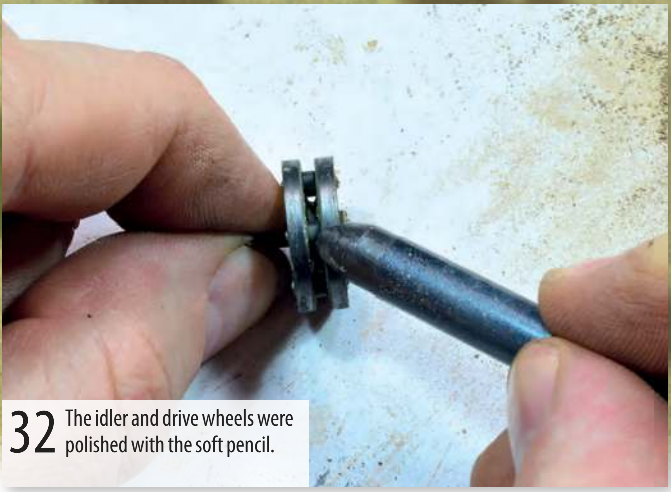
35 The tarpaulins were sculpted from Milliput with the addition of some straps (made from paper) and buckles (soldering wire).



36 On the other side, I also added a tarpaulin. Note the wires used to tie down the ammo cases.



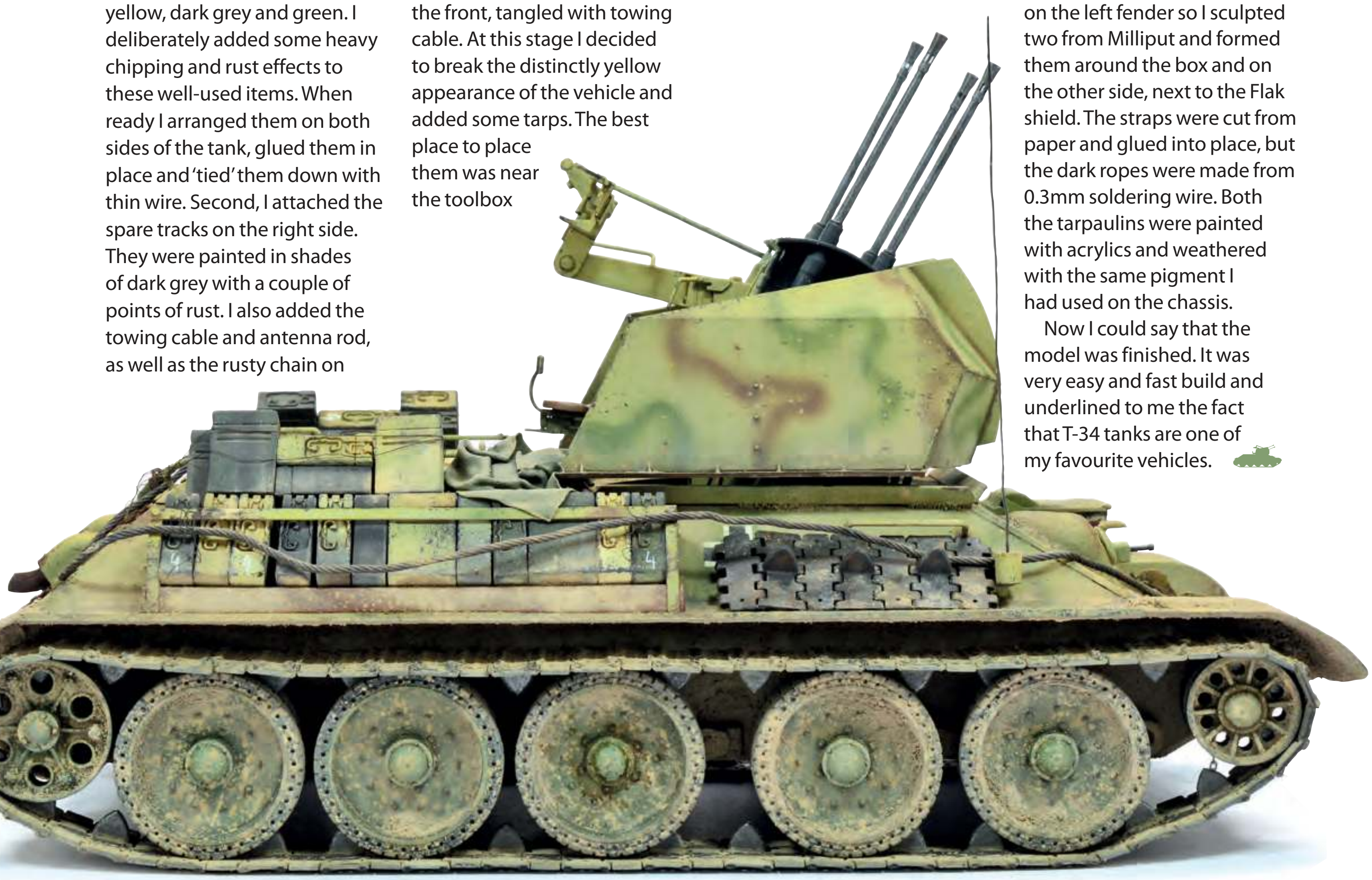
31 The wheels were dusted with pigment and the excess wiped off with my fingers. I did not use Fixer this time.

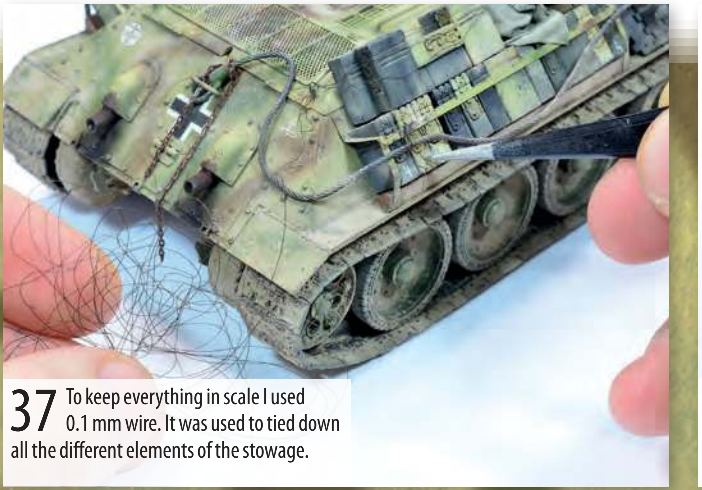


32 The idler and drive wheels were polished with the soft pencil.

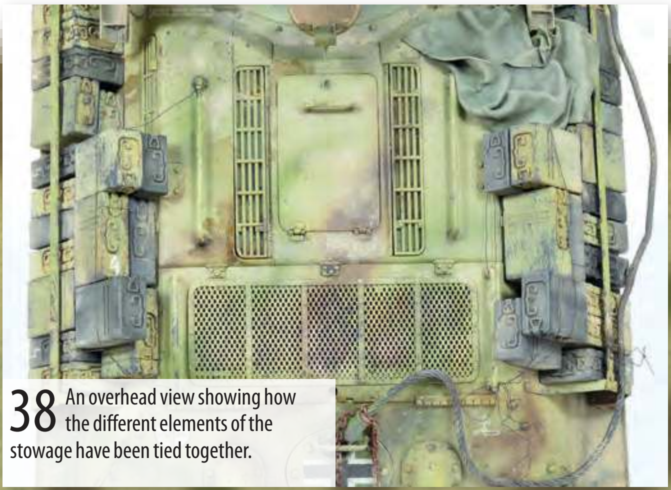
yellow, dark grey and green. I deliberately added some heavy chipping and rust effects to these well-used items. When ready I arranged them on both sides of the tank, glued them in place and 'tied' them down with thin wire. Second, I attached the spare tracks on the right side. They were painted in shades of dark grey with a couple of points of rust. I also added the towing cable and antenna rod, as well as the rusty chain on the front, tangled with towing cable. At this stage I decided to break the distinctly yellow appearance of the vehicle and added some tarps. The best place to place them was near the toolbox on the left fender so I sculpted two from Milliput and formed them around the box and on the other side, next to the Flak shield. The straps were cut from paper and glued into place, but the dark ropes were made from 0.3mm soldering wire. Both the tarpaulins were painted with acrylics and weathered with the same pigment I had used on the chassis.

Now I could say that the model was finished. It was very easy and fast build and underlined to me the fact that T-34 tanks are one of my favourite vehicles.





37 To keep everything in scale I used 0.1 mm wire. It was used to tied down all the different elements of the stowage.



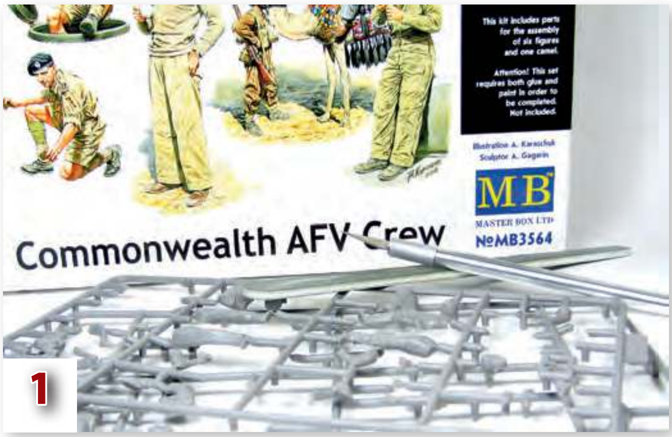
38 An overhead view showing how the different elements of the stowage have been tied together.

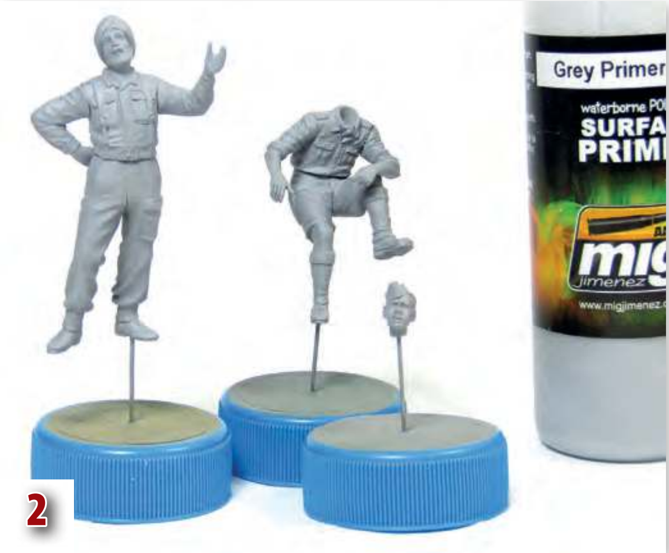
FIGURE PAINTING FOR MILITARY DIORAMA MODELLERS

Konstantinos Tsiompris explains his approach to painting figures.

Painting scale model figures, it must be admitted, is not an easy task for most armour modellers. We all have seen excellent or sometimes unbelievable painted figures and busts that make us avoid figure painting because we think cannot reach those dizzy heights or our figures will be a mess. In this short article I want to explain my style of painting 1/35-scale figures for dioramas. I should say that with this step-by-step article you will not learn all the secrets and the techniques to paint scale model figures to perfection but I hope to show you some useful tips to paint great figures to accompany your tanks, vehicles, dioramas and vignettes.

In a diorama the most important element of the scene is not the tank, the figures or the groundwork but all of them working together and finished to same level. If you have a wonderfully finished tank and a poorly painted figure then the diorama will look weird and unbalanced. My main modelling interest is dioramas, so I will try to explain how I go about painting figures for my dioramas.


This kit includes parts for the assembly of six figures and one camel.
Attention! This set requires both glue and paint in order to be completed. Not included.
Illustration A. Karashchuk
Sculptor A. Gagarin
MB
MASTER BOX LTD
№MB3564
Commonwealth AFV Crew
1


Grey Primer
waterborne
SURFA
PRIMI
mig
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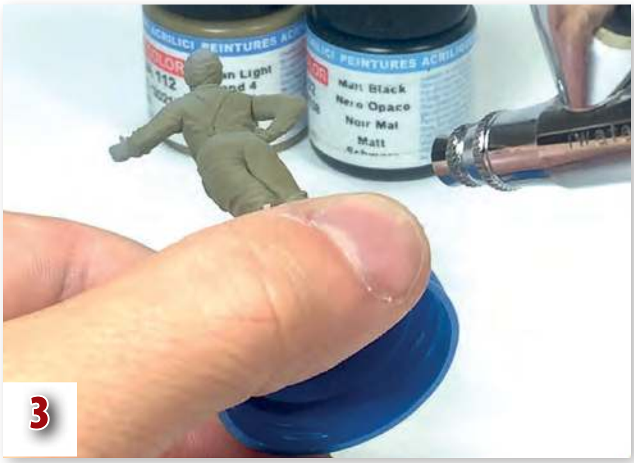
2

1 I had the idea of a World War II diorama, set in North Africa 1942 and chose the Commonwealth AFV crew from Masterbox. The plastic figures are superbly detailed and nicely moulded. With the help of a sanding stick and my hobby knife I removed any unwanted flash from the figures.

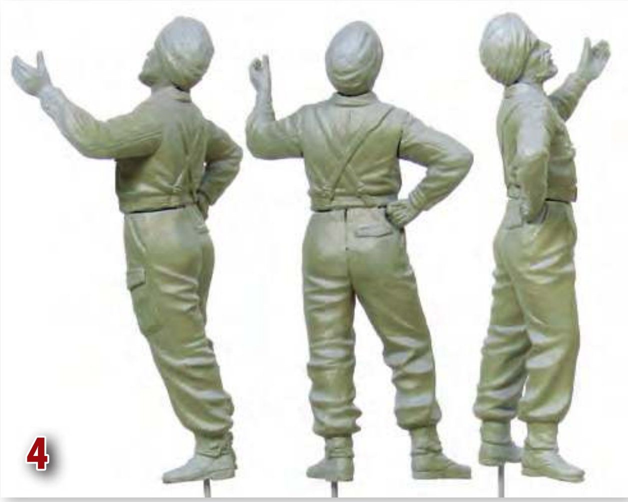
2 The figures were placed on plastic bottle cups with a piece of metal rod in order to hold them in place during the process of painting. I primed the plastic to achieve a smooth surface for painting. As you can see, even though the figures are plastic, they are just as well detailed as a resin figure.

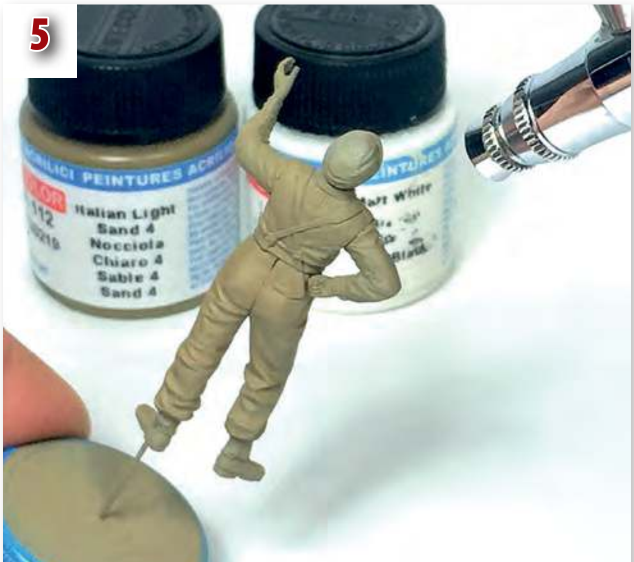

Matt Black
Nero Opaco
Noir Mat
Matt
3

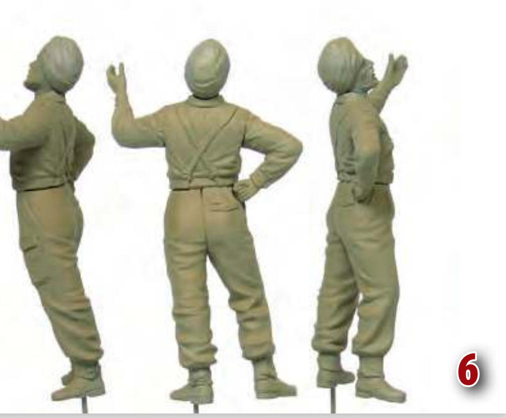
3 My approach to painting figures includes a tool that many figure painters don't use, and still I find my self wondering why? The airbrush is the most expensive tool in our hobby and I use it to make my modelling life easier. First, I chose the right base colour for my British figure, LifeColor UA 112 Italian Sand. I then started to paint some shadows on the figure with my airbrush. I mixed some black paint with my base colour and held the figure upside down and, holding my airbrush at a 45-degree angle to the figure, I sprayed from the legs to the head.

4 In these three images you can see the work done in the previous step and how the figure looks. Viewing the figure from the top, it is chiefly grey, but if we view it from the bottom it appears dark brown. These are the basic shadows to develop later.

5 I did exactly the same with the highlights. I mixed the base colour with some white and I sprayed the figure from the top to the bottom with this lighter brown colour.




5
Italian Light Sand 4
Nocciola Chiaro 4
Sable 4
Sand 4
Matt White



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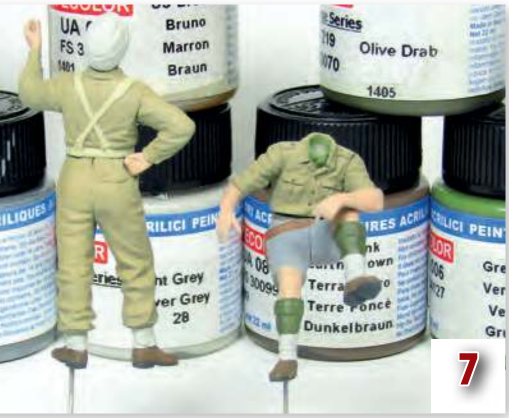

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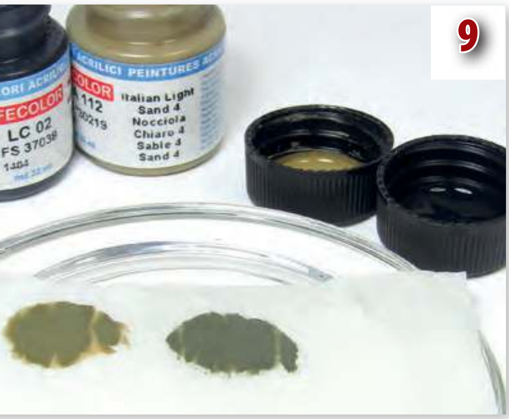

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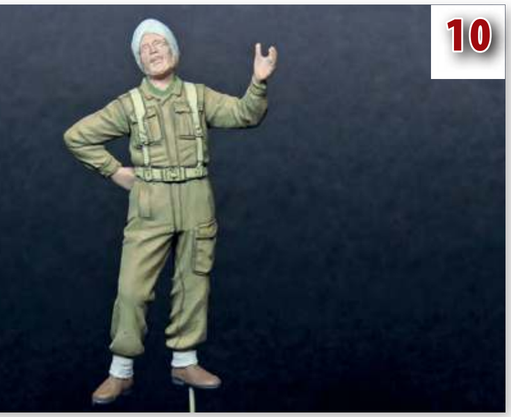

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6 Here we see the result of the first layers of shadows and highlights. The figure is starting to take shape and obtain a sense of depth. So far this is an hour's work, a much quicker process than doing the same with a brush.

7 It is now time to pick out the details of the uniform with a brush using various LifeColor paints.

8 For the skin, I used a flesh tone paint again from LifeColor and a paintbrush.

9 Now it's time to refine the shadows on the figure using a paintbrush. For this task, it's advisory to make at least two darker tones of the base colour in order to obtain some strong shadows. I used Matt Black and the Italian Sand base with a little thinner to make two darker tones.

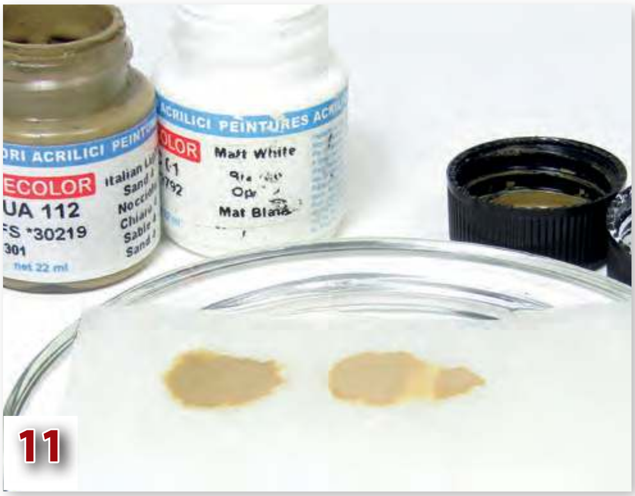
10 Using the work done with the airbrush as a guide, I refined the shadows. It makes a nice contrast and begins to make the figure come alive. You need patience because this step is time consuming but the result is worth it.

11 Now it's turn to add some highlights. I did the same as with the shadows but instead added Matt White to make two lighter shades of the base colour.

12 Here we can see the result of the refining process of the shadows and the highlights done with the paintbrush.

13 To enhance some of the deepest shadow I made a dark shadow mix and painted some strong folds on the clothes to make them stand out more.

14 I also used some LifeColor Sandgrau UA 202 to paint some strong highlights on the figure. This completed the work on the shadows and highlights and I was pleased with the result.



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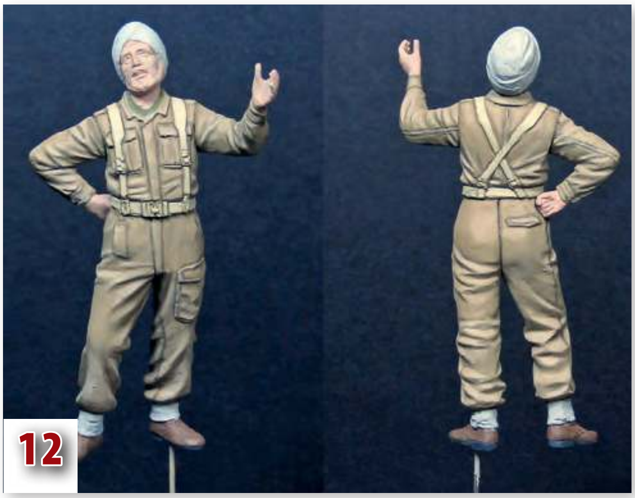

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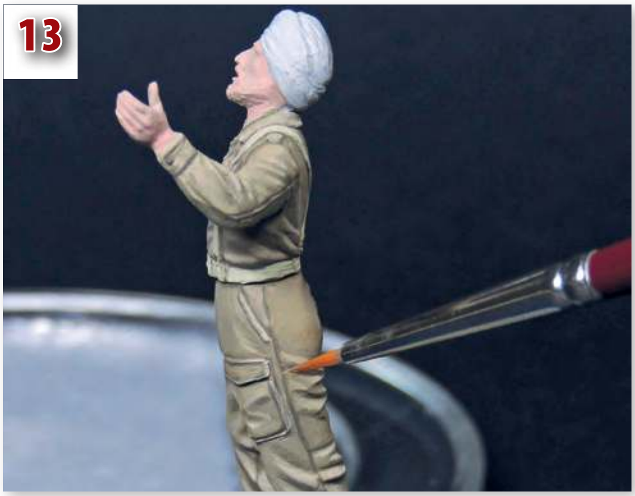

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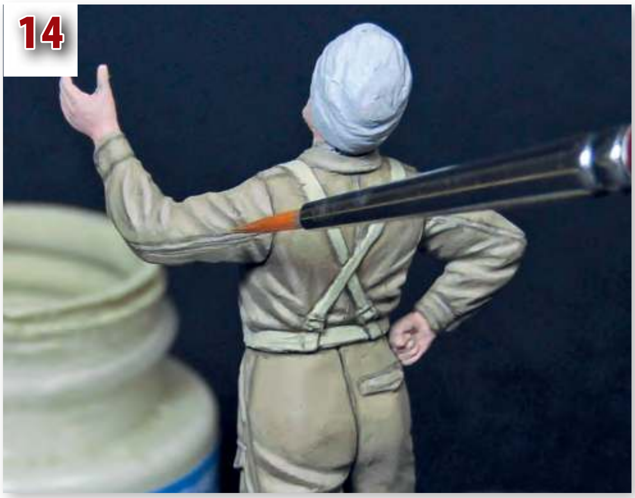

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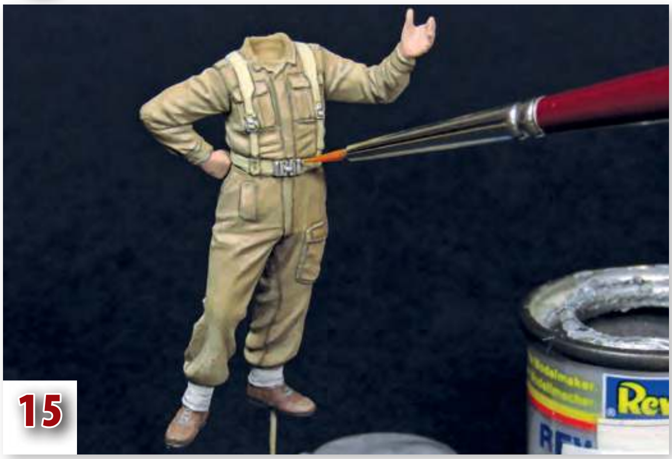

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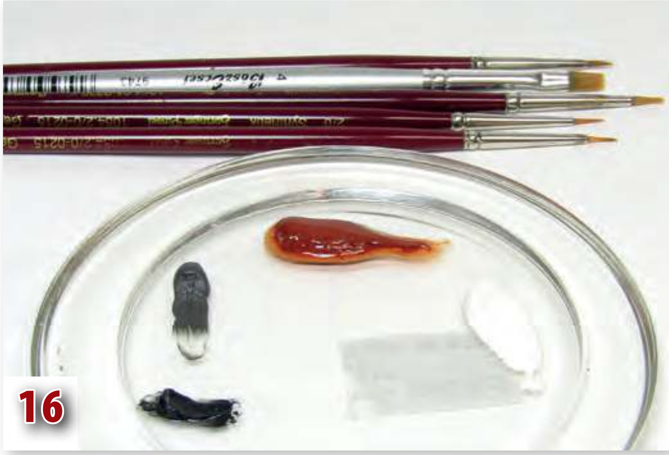

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15 For depicting the metal parts such as the metallic parts of the belt, I used an enamel paint from Revell. I also decided to swap the plastic head with a resign one from Hornet.

16 Now I switch from the acrylics to oils to start the painting the flesh. I used Burnt Sienna, Black, White and Grey.

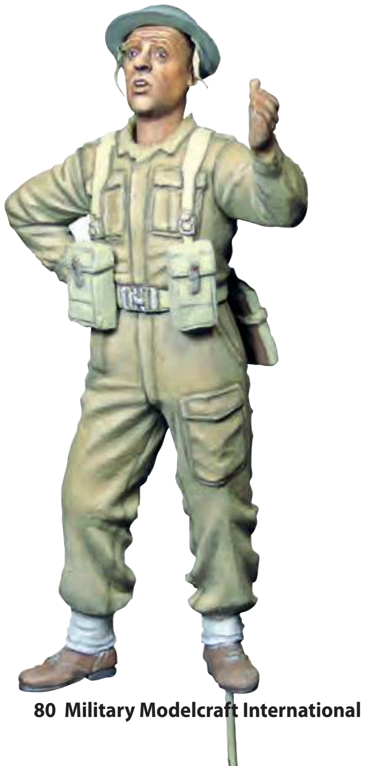
17 I mixed some Burnt Sienna with a little grey and I applied the mix over the entire head using a paintbrush.

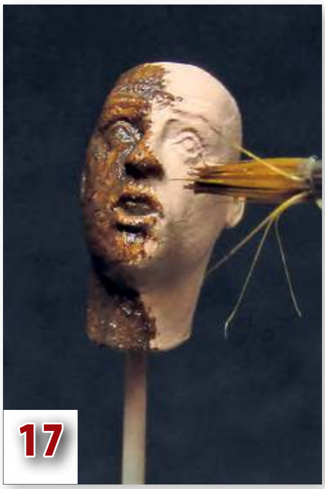
18 After five minutes, using a wider brush and with downwards movements, I wiped the oil color from the head using only the brush and no thinner. This leaves the shadows in the right spots.

19 For the highlights, I mixed three shades of Burnt Sienna and white, increasing the amount of the white each time. You can see where I placed the first highlight mix on the head.

20 With a fine pointed brush I blended the oil paint with this result. You can see how the different applications change the appearance of the figure.

21 To give the face some life and to break the monotony of the flesh shades, I added a little Burnt Sienna on the cheeks and with a clean brush I blended the spots.





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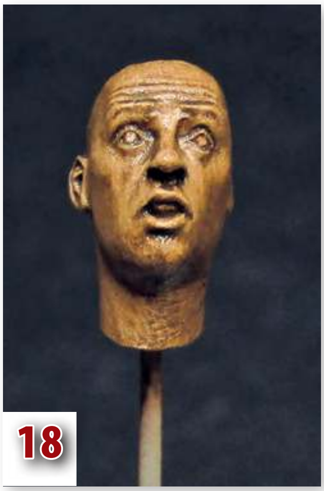

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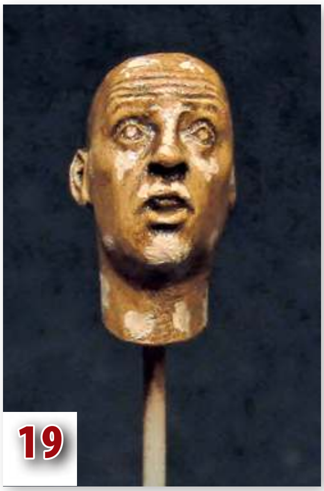

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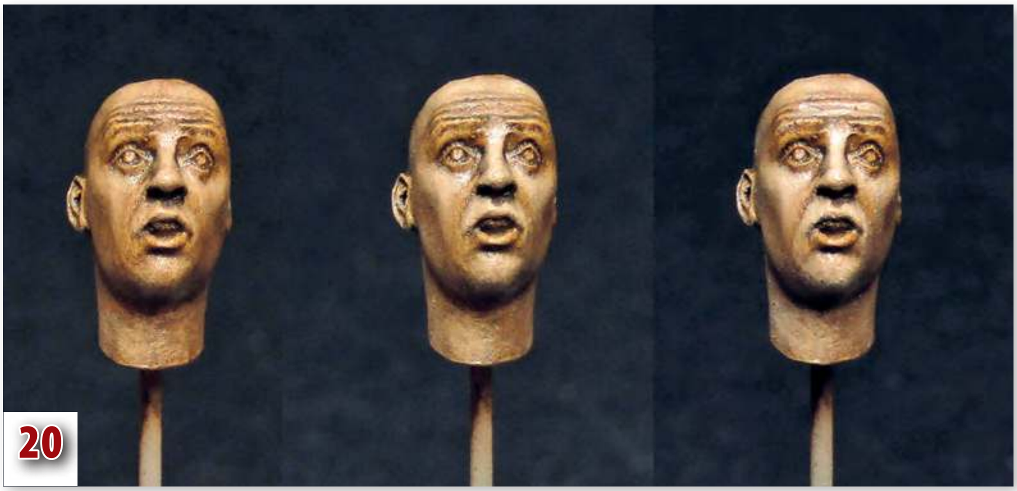

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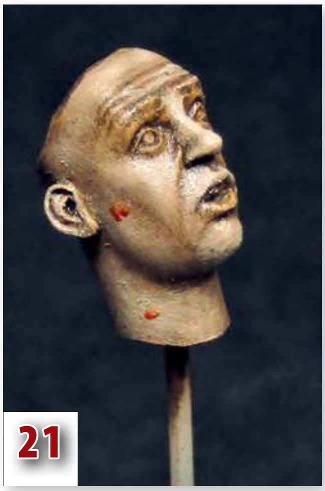

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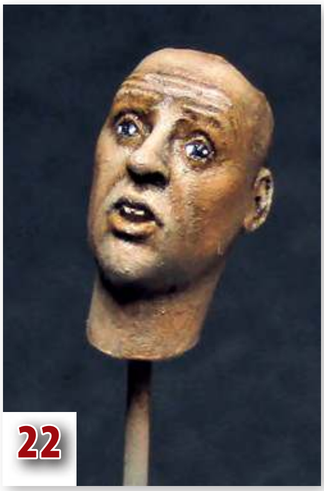

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22 Finally, I painted the eyes. First, I painted a black dot on the centre of the eye, then with the help of a very fine paintbrush and some white oils, I painted a very small dot on the left and right of the black dot.

I hope this short article has shed some light on the techniques I used to paint figures reasonably quickly for dioramas. I hope too it has inspired you to include some figures in your next project if you don't normally do so!

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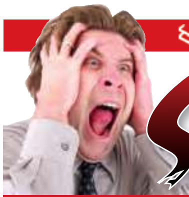

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It's interesting to reflect on how the online aspect of our hobby has changed in recent years. A decade or so it was still very much all about the forums, with sites like Missing Lynx and TrackLink leading the way, and, speaking to our editor, I know that is where many of our contributors first 'met', so to speak, and it was through posting their work on those sites that they were invited to contribute to this and other magazines. Roll forward to 2018 and it seems that Facebook has filled that space. There are numerous special interest groups, dedicated to various vehicles (such as the Challenger MBT or Panther) or theatres of war (such as the recent conflict in Ukraine), as well as pages hosted by the major players in the industry (those of IBG, MiniArt and Trumpeter/Hobbyboss spring to mind). In some ways, the friendships made on Facebook through a shared interest in modelling are much more enduring than those connections made through the forums as you quickly come to know the man (or woman) behind the models!

Our Facebook page now has over well over 63,500 followers, making it the biggest military modelling site on Facebook. If you are a manufacturer or retailer and would like to take advantage of the reach offered by our Facebook page to promote your products then please contact me, **Tom Foxon, Guideline Publications' Group PR and Marketing Director (tom@regallitho.co.uk**. Remember we're always happy to receive new products announcements and samples for review which will be featured in both the print magazine and on our Facebook page. Similarly, if you want to see your models featured on our Facebook page or on this page in the magazine, then please do message us.

(right) Max Hafiz Padzil from Malaysia has made a very neat job of Hobbyboss's Leopard 2A6EX.

(left) Lt. George Cairns VC of the Somerset Light Infantry was killed in action fighting as part of the South Staffordshire Regiment's battalion of Chindits in March 1944. José Brito's beautifully painted bust and figure captures the heroism of his desperate hand-to-hand fight against a Japanese force for which he was awarded Britain's highest award for gallantry, the Victoria Cross. You can read the full story of Lt Cairns's bravery and José's tribute to him soon in MMI.

(right) Wayne Taylor sent us this nicely painted bust of Lt Edward McDonald, of the SAS and Cameron Highlanders, produced by Mitches Military Models.

(left) Greg Mockos has done a superb job with Dragon's Panther Ausf. G Late

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